# APPENDIX B

Biological Technical Report

# BIOLOGICAL TECHNICAL REPORT

# PBP Industrial Project

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# ACRONYMS, ABBREVIATIONS, AND GLOSSARY OF TERMS

| | |
|---|---|
| APN | Assessor's Parcel Number |
| BLM | United States Bureau of Land Management |
| BMPs | Best Management Practices |
| CDFW | California Department of Fish and Wildlife |
| City | City of Orange |
| CESA | California Endangered Species Act |
| CEQA | California Environmental Quality Act |
| CNDDB | California Natural Diversity Database |
| CNPS | California Native Plant Society |
| CRPR | California Rare Plant Rank |
| CWA | federal Clean Water Act |
| ESA | federal Endangered Species Act |
| FGC | Fish and Game Code |
| MBTA | Migratory Bird Treaty Act |
| NPPA | Native Plant Protection Act |
| NRCS | Natural Resources Conservation Service |
| NWI | National Wetlands Inventory |
| OHWM | Ordinary High Water Mark |
| Project | Chapman Yorba VIII project |
| RWQCB | Regional Water Quality Control Board |
| USACE | United States Army Corps of Engineers |
| USFS | United States Forest Service |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| VCS | VCS Environmental |
| WDR | Waste Discharge Requirement |
| WOS | Waters of the State |
| WOUS | Waters of the United States |

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# 1.0 INTRODUCTION

On behalf of Patriot Construction and Development Inc, VCS Environmental (VCS) prepared this Biological Technical Report, which incorporates the findings from the general biological survey conducted by VCS biologists Wade Caffrey, Molly Burdick-Whipp, and Nathalie Munoz on February 16, 2021, and September 21, 2022. In addition, it includes a field survey for Desert Tortoise (*Gopherus agassiziil)*, Burrowing Owls (*Athene cunicularia*), Site reviews for Mohave Ground Squirrels (*Spermophilus mohavensis*), Sharp-shinned Hawk (*Accipiter striatus*), all Owls and Hawks, Loggerhead Shrike (*Lanius ludovicianus*), and LeConte's Thrasher (*Toxostoma LeContei*), western Joshua tree (*Yucca brevifolia*), and a Vegetation and Rare plant survey conducted on October 20, 2022 and January 3, 2023 by Philippe Vergne of ENVIRA Consulting (Envira). VCS prepared this report for the PBP Industrial Project (Project).

## 1.1 Purpose and Approach

This report provides a summary of the conditions present during the surveys conducted by Envira and VCS Environmental, an assessment of the potential presence of sensitive biological resources, and an analysis of the potential impacts to those resources with implementation of the Project. This report presents the current biological resources present within the Project Footprint and Future Development Areas and Associated Survey Area including habitat communities, potentially jurisdictional waters, and the potential occurrence of listed and special status plant and wildlife species. This biological analysis evaluates the construction and operation of two industrial buildings on a single building lot and the adjacent right-of-way improvements, referred to as the Project Footprint in this report. To provide a cumulative evaluation of potential impacts to the project area, the analysis considers the project along with development of approximately 200,000 square feet of industrial building area on nearby Lot 12, Lot 16 and Lot 20, which are also owned by the applicant with the intent that they would be developed in the near future. Therefore, because the Project Footprint is considered to have independent utility, impacts and mitigation discussed in this report have been focused on the Project Footprint, as appropriate.

The potential biological impacts in view of federal, state, and local laws and regulations are also identified in this report. While general biological resources are discussed, the focus of this assessment is on those resources considered to be sensitive. The report also recommends, as appropriate, Best Management Practices (BMPs), avoidance, minimization, and mitigation measures to reduce or avoid potential impacts. This report was prepared based upon results of a literature review and field survey.

## 1.2 Terms

The following terms will be used throughout this document and are defined as follows:

- Project site: The approximately 6.0-acre property subject to impacts by the Project activities that includes the Project site consisting of Assessor Parcel Number (APN) 3022-026-003.
- Project Footprint: The Project Footprint combines the Project site and right-of-way acreages for a total of approximately 7.1 acres.
- Right-of-Way (ROW) Improvements: The approximately 1.1 acres subject to utilities and roadway improvements off site of the Project site and within the Project Footprint.
- Future Development Areas and Associated Survey Area: The approximately 17.1-acre property not subject to impact by the Project but owned by the applicant, Assessor Parcel Numbers (APNs) 3022-026-012 (Lot 12), 3022-025-004 (Lot 16), and 3022-025-008 (Lot 20) and associated survey areas.

- Study Area: Includes the Project Footprint and Future Development Areas and Associated Survey Area and a 500-foot buffer area, as applicable depending on the species.

## 1.3 Project Site Location

The proposed Project is located within an urbanized environment and is located on the United States Geological Survey (USGS), Palmdale California, 7.5 Minute Quadrangle Map (USGS, 2015). The Project Footprint is located south of Blackbird Drive and east of 10th Street in the City of Palmdale, County of Los Angeles. The Project Footprint is regionally accessible from Sierra Highway and East Avenue P. The Project Footprint can be locally accessed from Sierra Road, Blackbird Drive, Rancho Vista Boulevard, and 10th Street. Regional and Aerial Maps are included as Figures 1 and 2, respectively. The Project Footprint consists of the Project site and ROW Improvements. The Project Footprint is located within Section 14, Township 6s, Range 12W of the USGS Topographic Map (Figure 3).

## 1.4 Current Conditions

The Project Footprint and Future Development Areas and Associated Survey Area consist of approximately 24.2 acres of vacant land situated north of East Avenue P, south of Blackbird Drive, east of Lockheed Way, and west of 10th Street East. The Future Development Areas and Associated Survey Area consists of APNs 3022-026-012 (Lot 12), 3022-025-004 (Lot 16), and 3022-025-008 (Lot 20) and associated survey area adjacent to Lot 12, 16, and 20 and between Lot 16 and 20, totaling 17.1-acres. The majority of the 24.2-acre area is located between approximately 2590+/- to 2600+/- feet (789-792 meters) above mean sea level and is relatively flat with a 0.25+/- % slope to the north-northeast.

# 2.0 PROJECT DESCRIPTION

The proposed project is subject to Site Plan approval to allow for the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of building area and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land. The Project consists of one vacant parcel of land, located south of Blackbird Drive and east of 10th Street. In addition, the Project will include storm drains, a driveway, project frontage improvements, landscaping, and water and sewer utilities. The appropriate permits required for the construction of the Project will be obtained prior to development. A site plan is included as Figure 4. The proposed Project would be consistent with the existing General Plan Industrial designation and the existing Light Industrial Zoning on the site.

# 3.0 REGULATORY CONTEXT

The following is a list of the relevant federal, state, and local laws and regulations that apply to protecting plant communities, plants, wildlife, and water quality from impacts within the Project Footprint.

| Agency/Organization | Laws/Regulations | Notes |
|---|---|---|
| Federal | Clean Water Act (CWA) Section 404 | Jurisdictional Waters of the United States (WOUS) are not present within the Project Footprint or Future Development Areas and Associated Survey Area; therefore, a Section 404 Permit from the United States Army Corps of Engineers (USACE) will not be required. |
| | CWA Section 401 | No WOUS are present within the Project Footprint or Future Development Areas and Associated Survey Area. Therefore, a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB) will not be required. |
| | CWA Section 408 | No facilities subject to Section 408 occur within the Project. |
| | Migratory Bird Treaty Act (MBTA) | Compliance with the MBTA will be achieved with pre-construction surveys for nesting birds prior to initiation of work. |
| | Endangered Species Act (ESA) | No federally listed species were observed within the Project Footprint or Future Development Areas and Associated Survey Area during the 2022 surveys. There is a low potential for Desert tortoise and Mitigation Measure BIO-3 will reduce impacts of Desert tortoise to less than significant. |
| State | Section 1600 of the Fish and Game Code (FGC) | Jurisdictional WOS are not present within the Project Footprint. Jurisdictional WOS are present within the Future Development Areas and Associated Survey Area; however, they will not be impacted during Project activities for the development of the Project Footprint. Therefore, a Section 1600 Permit through the California Department of Fish and Wildlife (CDFW) will only be required for Future Development Areas. |
| | Sections 3503, 3503.5, and 3513 of the FGC | These FGC sections offer protection of nesting birds, birds-of-prey, and migratory birds. Compliance will be maintained with a pre-construction survey for nesting birds (including birds-of-prey and migratory birds) prior to initiation of work. |
| | Section 4150 of the FGC | Prohibits incidental or deliberate "take" of non-game mammals, including bats. No impacts to bats are anticipated as a result of Project activities. |

| Agency/Organization | Laws/Regulations | Notes |
|---|---|---|
| | Porter-Cologne Water Quality Control Act and Water Discharge Requirements (WDR) | Jurisdictional WOS are not present within the Project Footprint. Jurisdictional WOS are present within the Future Development Areas and Associated Survey Area; however, they will not be impacted during Project activities for the development of the Project Footprint. Therefore, a WDR will only be required for Future Development Areas. |
| State | California Endangered Species Act (ESA) Sections 2050-2115.5 of FGC | These FGC sections offer protection of endangered, threatened, or candidate species. Western Joshua tree, a State listed species, was observed within the Project Site and the Future Development Areas and Associated Survey Area during the biological surveys; therefore, compliance with the State ESA or WJTCA is required as detailed in BIO-1 for the development of the Project Site. |
| | Western Joshua Tree Conservation Act (WJTCA; AB 1008) Sections 1927.1-1927.10 of FGC | These FGC sections offer protection of western Joshua tree and would allow the department to authorize, by permit, the taking of western Joshua tree if specified conditions are met. Western Joshua trees were observed within the Project Site and the Future Development Areas and Associated Survey Area during the biological surveys; therefore, compliance with the State WJTCA is required as detailed in BIO-1 for the development of the Project Site. |
| Local | West Mojave Plan (WMP) | The WMP includes the West Mojave Desert area encompassing 9.3 million acres in Inyo, Kern, Los Angeles, and San Bernardino Counties: 3.3 million acres of public lands administered by the BLM, 3.0 million acres of private lands, 102,000 acres administered by the State of California, and the balance of military lands administered by the Department of Defense. While the USFWS issued a Biological Opinion for the federal portion of the plan in 2006, the State portion of the plan has not been permitted. Until the State portion of the plan is passed, it cannot be used by State or private entities. The Project Footprint is located within the geographic boundaries of the WMP; however, the Project would not be processed under the WMP because it is a private project. Moreover, the Project would not interfere with any conservation areas designated by the WMP including Habitat Conservation Area, Special Review Area, critical habitat on Military Lands, existing Area of Critical Environmental Concern, or BLM Wilderness Area. |

| Agency/Organization | Laws/Regulations | Notes |
|---|---|---|
| | The City of Palmdale PMC 14.04 and Ordinance 1556 | Addresses the implementation of the *Palmdale Native Desert Vegetation Ordinance*, which identifies desert vegetation species, to be evaluated, protected, and maintained. |
| | The City of Palmdale General Plan Environmental Resources Section | The Environmental Resources Section of the City's General Plan identifies species to be evaluated for biological resources reports. This report has been prepared to satisfy these requirements. The Project is not located within an area designated as a Significant Ecological Area by the County of Los Angeles. |

## 3.1 Impacts Terminology

Potential impacts to biological resources that could result from implementation of the proposed Project are discussed in each of the Vegetation, Wildlife, and Jurisdictional Waters sections presented in this report.

Biological resources may be either directly or indirectly impacted by a project. Furthermore, direct and indirect impacts may be either permanent or temporary in nature. These impact categories are defined below. These terms will be used throughout the document.

- Direct Impact: Any loss, alteration, disturbance, or destruction of biological resources that would result from project-related activities is a direct impact. Examples include vegetation clearing, encroaching into wetlands, diverting natural surface water flows, and the loss of individual species and/or their habitats. Direct impacts are long-term. The entire Project Footprint will be subject to direct impacts, therefore, all resources observed within the Project Footprint will be considered directly impacted.
- Indirect Impact: As a result of project-related activities, biological resources may also be affected in a manner that is not direct. Examples of indirect impacts include elevated noise, light, and dust levels, increased human activity, decreased water quality, erosion created by the removal of vegetation, and the introduction of invasive plants and unnatural predators (e.g., domestic cats and dogs). These indirect impacts may be both short-term and long-term in their extent.
- Permanent Impacts: All impacts that result in the long-term or irreversible removal of biological resources are considered permanent. Examples include constructing a building or permanent road on an area containing biological resources.
- Temporary Impacts: Any impacts considered to have reversible effects on biological resources can be viewed as temporary. Examples include the generation of fugitive dust during construction, removing vegetation, and either allowing the natural vegetation to recolonize or actively revegetating the Project Footprint.

The determination of impacts in this analysis is based on both the proposed Project Footprint and the biological values of the habitat and/or sensitivity of plant and wildlife species to be affected. Any recommended mitigation measures to address impacts are discussed below.

# 4.0 VEGETATION

## 4.1 Literature Review

### 4.1.1 Sensitive Plant Communities

Sensitive plant communities (sensitive habitats) as defined below, are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. Sensitive habitats are often threatened with local extirpation and are therefore considered as valuable biological resources. Plant communities are considered "sensitive" by the California Native Plant Society (CNPS) and CDFW if they meet any of the following criteria listed below.

- The habitat is recognized and considered sensitive by CDFW, United States Fish and Wildlife Service (USFWS), and/or special interest groups such as CNPS.
- The habitat is under the jurisdiction of the USACE pursuant to Section 404 of the CWA.
- The habitat is under the jurisdiction of the CDFW pursuant to Sections 1600 through 1612 of the FGC.
- The habitat is known or believed to be of high priority for inventory in the California Natural Diversity Database (CNDDB).
- The habitat is considered regionally rare.
- The habitat has undergone a large-scale reduction due to increased encroachment and development.
- The habitat supports special status plant and/or wildlife species (defined below).
- The habitat functions as an important corridor for wildlife movement.

The most current version of CDFW's List of California Sensitive Natural Communities indicates which natural communities are sensitive given the current state of the California classification (CDFW 2021a).

### 4.1.2 Special Status Plants

Species of plants are afforded "special status" by federal agencies, state agencies, and/or non-governmental organizations (e.g., USFWS, CDFW, CNPS, and United States Forest Service [USFS]) because of their recognized rarity, potential vulnerability to extinction, and local importance. These species typically have a limited geographic range and/or limited habitat and are referred to collectively as "special status" species. Plant species were considered "special status" species if they meet any of the following criteria:

- Taxa with official status under ESA, California Endangered Species Act (CESA), and/or the Native Plant Protection Act (NPPA).
- Taxa proposed for listing under ESA and/or CESA.
- Taxa identified as sensitive, unique or rare, by the USFWS, CDFW, USFS, and/or the Bureau of Land Management (BLM).
- Plants that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA) §15380(b) and (d). Species that may meet the definition of rare or endangered include the following:

  - Species considered by CNPS and CDFW to be "rare, threatened or endangered in California" (California Rare Plant Rank [CRPR] 1A, 1B and 2; CNPS 2019). A majority of the CRPR 3 and CRPR 4 plant species generally do not qualify for protection under CESA and NPPA.
  - Species that may warrant consideration on the basis of local significance or recent biological information.
  - Some species included on the CNDDB Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2021b).

- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances. Examples include a species at the outer limits of its known range or a species occurring on an uncommon soil type.

Available literature and databases were reviewed regarding sensitive habitats and special status plant species. Special status plant species that have the potential to occur within the immediate region of the Project Footprint were identified. Several agencies, including the USFWS, CDFW, and CNPS publish lists of particular taxa (species and subspecies) and the associated level of protection or concern associated with each. Reviewed and consulted literature and databases focused on the Project Footprint and included the following sources listed below:

- The CNDDB, a CDFW species account database that inventories status and locations of rare plants and wildlife in California, was used to identify any sensitive plant communities and special status plants that may exist within a two-mile radius of the Project Footprint (CDFW 2023c).
- Online CNPS Inventory of Rare and Endangered Plants of California (CNPS 2023). A search for the United States Geological Survey (USGS) 7.5-Minute Topographic Map Palmdale Quadrangle provided information regarding the distribution and habitats of special status vascular plants in the vicinity of the Project.
- A map of USFWS critical habitat to determine species with critical habitat mapped in the general vicinity of the Project (USFWS 2023a).
- The USFWS's Information for Planning and Consultation online tool, which identifies species and critical habitat under USFWS jurisdiction that are known or expected to be on or near the Project area (USFWS 2023b).
- Pertinent maps, scientific literature, websites, and regional flora and fauna field guides.

As noted previously, species occurrence and distribution information are often based on documented occurrences where opportunistic surveys have taken place; therefore, a lack of records does not necessarily indicate that a given species is absent from the Project Footprint.

## 4.2 Field Methodology

Biological surveys were performed within the Study Area, Project Footprint, Future Development Areas and Associated Survey Area, which includes Lots 3, 12, 16, and 20, on February 16, 2021, by VCS biologists Wade Caffrey and Molly Burdick-Whipp and September 21, 2022, by VCS biologists Wade Caffrey and Nathalie Munoz. During the surveys, the biologists walked the entirety of the Project Footprint and Future Development Areas and Associated Survey Area, paying special attention to those areas that could host

sensitive vegetation communities or had the potential to provide suitable habitat for special status plant species. Plant species were identified using plant field and taxonomical guides, such as The Jepson Manual: Vascular Plants of California, second edition (Baldwin et al. 2012). All plant species encountered during the field survey were identified and recorded in field notes.

The vegetation communities and habitat conditions were inspected to confirm presence and habitat quality of the vegetation found onsite. Where appropriate, descriptions of vegetation communities from the Manual of California Vegetation (Sawyer et al. 2008) were also utilized. Any deviations from standard vegetation classifications were made on best professional judgment when areas did not fit into a specific habitat description provided by the Manual. Vegetation communities were mapped using field observations and utilizing aerial imagery. The vegetation map is provided as Figure 5, Vegetation Map.

Additional habitat assessments were conducted within the Study Area on October 20, 2022, and January 3, 2023, by Philippe Vergne of Envira. Surveys conducted were for the Desert Tortoise (DT), Burrowing Owls, Mohave Ground Squirrels (MGS), Sharp-shinned Hawk, all Owls and Hawks, Loggerhead Shrike, and LeConte's Thrasher, western Joshua tree, and a Vegetation and Rare plant survey.

## 4.3 Results/Impacts

### 4.3.1 Vegetation Communities

The Project Footprint and Future Development Areas and Associated Survey Area supports a mixed shrub community typical of the general area. The Project Footprint and Future Development Areas and Associated Survey Area is comprised of predominantly native vegetation and shows signs of historical disturbance from agricultural uses, grading of dirt roads, and off-highway vehicles. The Project Footprint supports three vegetation/land cover types. The Future Development Areas and Associated Survey Area supports five vegetation/land cover types.

Vegetation/land cover mapping and acreages for each vegetation community and land type within the Project Footprint and the Future Development Areas and Associated Survey Area can be found in Table 2, *Vegetation Communities/Land Cover Observed within the Project Footprint and the Future Development Areas and Associated Survey Area*. Additionally, representative photographs of the Project Footprint and the Future Development Areas and Associated Survey Area are included as Appendix A and a map of the vegetation communities and land covers is included as Figure 5, Vegetation Map.

Table 2. Vegetation Communities/Land Cover Observed within the Project Footprint and the Future Development Areas and Associated Survey Area

| Vegetation Community/Land Cover Type | Project Footprint (Acres) | Future Development Areas & Associated Survey Area (Acres) |
|---|---|---|
| Big Sagebrush Scrub | - | 5.16 |
| Creosote Scrub | - | 0.95 |
| Disturbed/Developed | 0.9 | 0.79 |
| Mixed Desert Scrub | - | 4.27 |
| Western Joshua Tree Woodland | 4.55 | 5.95 |
| Rabbitbrush Scrub | 1.66 | - |
| **Total** | **7.1** | **17.1** |

Dominant species found within the Project Footprint and the Future Development Areas and Associated Survey Area include western Joshua trees (*Yucca Brevifolia*), creosote bush (*Larrea tridentata*), Mormon Tea *(Ephedra nevadensis)*, California buckwheat (*Eriogonum fasciculatum*), Big Sagebrush (*Artemisia tridentata*), Rabbitbrush (*Chrysothamnus nauseosus*), burrobush (*Franseria dumosa*), Boxthorn *(Lycium andersonii),* Indian rice grass (*Oryzopsis hymenoides*) and Russian thistle (*Salsola sp*.) along perimeter roads. Annuals observed during the survey included minor amounts of fiddleneck (*Amsinckia* sp.), and brome (*Bromus* sp.) and invasive species [e.g., Filaree Storksbill (*Erodium* sp.) and schismus (*Schismus barbatus*)]. Native desert plants observed include the western Joshua tree, Chollas (*Cylindropuntia*), and small creosote rings. Impacts to western Joshua tree within the Project Footprint and mitigation are further discussed below in Section 4.3.1.5.

#### 4.3.1.1 Big Sagebrush Scrub

The Future Development Areas and Associated Survey Area consist of Big Sagebrush Scrub vegetation (*Artemesia tridentata* Shrubland Alliance). This area is dominated by big sagebrush, along with short pod mustard (*Hirschfeldia incana*) and Mediterranean grass (*Schismus barbatus*) within the herb layer. Big Sagebrush Scrub are considered a sensitive vegetation community by CDFW and has a Global Rank 4 and a State Rank of 4 indicating that the community is apparently secure globally and statewide in California. This community is found in the southeastern portion of Lot 12, southwestern portion and eastern portion of Lot 16, and the northwestern corner and eastern edge of Lot 20.

#### 4.3.1.2 Creosote Scrub

The Future Development Areas and Associated Survey Area consist of Creosote scrub vegetation (*Larrea tridentata* Shrubland Alliance). This vegetation category within the Project Footprint is dominated by creosote bush, along with ephedra, Mediterranean grass, and rubber rabbitbrush (*Ericameria nauseosa*). This community is found in the northeastern corner of Lot 12.

#### 4.3.1.3 Disturbed/Developed

The Project Footprint and the Future Development Areas and Associated Survey Area consist of Disturbed/Developed habitat. This area includes dirt roads and shoulder/right-of-way areas mostly devoid of vegetation. This community is found on the western and northern boundaries of the Project Footprint, and western and eastern boundaries of the Future Development Areas and Associated Survey Area. Impacts to this community within the Project Footprint are not considered significant.

#### 4.3.1.4 Mixed Desert Scrub

The Future Development Areas and Associated Survey Area consist of Mixed Desert Scrub vegetation. This area is comprised of Mormon tea, lotebush, rubber rabbitbrush, shortpod mustard, fiddleneck *(Amsinckia* sp.), and Mediterranean grass. Two large areas classified as Mixed Desert Scrub were disturbed, containing trash/debris that appears to have been dumped onsite and generally exhibited low vegetation cover. This community is found on the eastern boundary of Lot 12 and the southeastern majority of Lot 20 of the Future Development Areas and Associated Survey Area.

#### 4.3.1.5 Western Joshua Tree Woodland

Western Joshua Tree Woodland (*Yucca brevifolia* Woodland Alliance), which includes nine Joshua trees, one which is dead, and a total o58 live trunks of varying sizes, occurs within the Project Site. Additionally, there are eleven western Joshua trees and a total of 26 live trunks of varying sizes within the Future Development Areas and Associated Survey Area. Two of these western Joshua trees are dead.

Table 3, *Western Joshua Tree Census within the Project Site and Future Development Areas and Associated Survey Area,* includes the western Joshua tree census conducted in January 2023 by Envira (Appendix B). Photographs of western Joshua trees are included in Appendix B. In addition, the size classes and applicable fees are included pursuant to the Western Joshua Tree Conservation Act section 1927.3 (a)(1)(A-C) and 1927.3 (d)(2)(A-B), respectively.

Table 3. Western Joshua Tree Census within the Project Site and Future Development Areas and Associated Survey Area

| Area | Map Ref. | Height (meters) | # of Trunks | Health | Size Class | Cost |
|---|---|---|---|---|---|---|
| Project Site | 32 | 0.91-1.22 | 3 | H | Less than one meter in height and one meter or greater but less than five meters in height. | $900 |
| | 35 | 0.91-1.83 | 6 | D | Less than one meter in height and one meter or greater but less than five meters in height. | $1,800 |
| | 37 | - | - | Dead | N/A | N/A |
| | 39 | 0.91-3.048 | 8 | D | Less than one meter in height and one meter or greater but less than five meters in height. | $2,400 |
| | 41 | 0.91 | 4 | D | Less than one meter in height. | $1,200 |
| | 42 | 2.44 | 2 | H | One meter or greater but less than five meters in height. | $600 |
| | 46 | 4.88 | 1 | D | One meter or greater but less than five meters in height. | $300 |
| | 47 | 3.048 | 2 | D | One meter or greater but less than five meters in height. | $600 |
| | 49 | 2.44 | 1 | H | One meter or greater but less than five meters in height. | $300 |
| Future Development Area & Associated Survey Area | 67 | 7.62 | 1 | D | Five meters or greater in height. | N/A |
| | 70 | - | - | Dead | N/A | N/A |
| | 71 | - | - | Dead | N/A | N/A |
| | 72 | 6.4 | 1 | H | Five meters or greater in height. | N/A |
| | 73 | 7.01 | 1 | H | Five meters or greater in height. | N/A |
| | 74 | 1.22-3.35 | 6 | Clones | One meter or greater but less than five meters in height. | N/A |
| | 75 | 0.91-3.048 | 8 | Clones | Less than one meter in height and one meter or greater but less than five meters in height. | N/A |
| | 76 | 4.57 | 2 | D | One meter or greater but less than five meters in height. | N/A |
| | 80 | 2.74 | 1 | H | One meter or greater but less than five meters in height. | N/A |
| | 82 | 9.14 | 2 | Clones | Five meters or greater in height. | N/A |
| | 81 | 2.44-4.88 | 4 | D | One meter or greater but less than five meters in height. | N/A |
| | | | | | **Total Cost** | **$8,400** |

In June 2023, the State passed the Western Joshua Tree Conservation Act (WJTCA), which allows a person or public agency to obtain a take authorization by meeting the conditions listed in Section 1927.3 (a)(1-4) of the WJTCA, which allows authorization through payment in the in-lieu fee program set forth in Section 1927.3 (a)(3) of the WJTCA. Additionally, any person or public agency may obtain authorization for either the removal or trimming of dead western Joshua trees without payment of fees or other mitigation, provided that the dead western Joshua trees or any limbs to be removed meet one of the criteria set forth in Section 1927.4 (a)(2)(A-C) and the property owner submits a permit request with the required information set forth in Section 1927.4 (a)(3)(A-D).

Under the current regulatory requirements, permits/take authority would need to be obtained through application to CDFW and fee payment prior to development of the Project Site. The proposed project would impact 58 living trunks.

In summary, the western Joshua tree census within the Project Site and Future Development Areas and Associated Survey Area, by lot, is as follows:

- Lot 3 contains nine western Joshua trees, of which one is dead. Therefore, there are eight live trees that contain 58 live trunks with a height range between 0.91-4.88 meters/3-16 feet.
- Lot 12 and 16 contains eleven western Joshua trees, of which two are dead. Therefore, there are nine live trees that contain 26 live trunks with a height range between 0.91-7.62 meters/3-25 feet.
- Lot 20 does not contain any western Joshua trees.

Due to the location of the western Joshua trees in the Project Site being relatively spread-out and unavoidable, direct impacts are expected to occur as a result of Project implementation and mitigation measures are recommended. The vast majority of western Joshua trees are not good candidates for relocation purposes; therefore, compensatory mitigation would be required. With the implementation of MM BIO-1 for the Project Site and avoidance measures listed in Section 9, impacts to the western Joshua tree are not expected to jeopardize the continued existence of western Joshua tree and would be considered less than significant.

#### 4.3.1.6 Rabbitbrush Scrub

Rabbitbrush Scrub (*Ericameria nauseosa* Shrubland Alliance) occurs within the Project Footprint. The vegetation is dominated by rubber rabbitbrush, while lotebush (*Ziziphus obtusifolia*), Mormon tea, and shortpod mustard occur at lower cover. This community is found on the northern and southwestern portion of the Project Footprint. Impacts to this vegetation community are not significant.

### 4.3.2 Additional Plant Species

A total of 35 plant species were observed within the Project Footprint and the Future Development Areas and Associated Survey Area during the 2021, 2022, and 2023 biological surveys and are included in the Plant and Wildlife Species Observed compendium found in Appendix C.

#### 4.3.2.1 Sensitive Plant Species with Potential to Occur

Sensitive plant species include federally or state listed threatened or endangered species and those species listed on CNPS's rare and endangered plant inventory. Species with the potential to occur onsite were analyzed based on distribution, habitat requirements, and existing site conditions, and are listed in Appendix D. The majority of the sensitive plant species have a low potential to occur onsite, with the exception of western Joshua tree discussed in Section 4.3.1.5. Sensitive species with a low potential are not described in detail in this report and no mitigation measures are recommended, therefore, impacts to these species are not significant.

# 5.0 WILDLIFE

## 5.1 Literature Review

Species of wildlife are afforded "special status" by federal agencies, state agencies, and/or non-governmental organizations because of their recognized rarity, potential vulnerability to extinction, and local importance. These species typically have a limited geographic range and/or limited habitat and are referred to collectively as "special status" species. Wildlife species were considered "special status" species if they meet any of the following criteria:

- Taxa with official status under ESA or CESA.
- Taxa proposed for listing under ESA and/or CESA.
- Taxa designated a species of special concern by CDFW.
- Taxa designated a state fully protected species by CDFW.
- Taxa identified as sensitive, unique, or rare, by the USFWS, CDFW, USFS, and/or BLM.
- Taxa that meet the definition of rare or endangered under the CEQA §15380(b) and (d).
- Species considered locally significant; that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances. Examples include a species at the outer limits of its known range.

Special status wildlife species that have the potential to occur within the immediate region of the Project Footprint were identified. Several agencies, including the USFWS and CDFW publish lists of particular taxa (species and subspecies) and the associated level of protection or concern associated with each. Reviewed and consulted literature and databases focused on the Project Footprint and included the following sources listed below:

- The CNDDB was used to identify any special status wildlife that may exist within a two-mile radius of the Project Footprint (Figure 6; CDFW 2023c). CNDDB records are generally used as a starting point when determining what special status species, if any, may occur in a particular area. However, these records may be old, lack data not yet entered, and do not represent all the special status species that could be in that particular area.
- A map of USFWS critical habitat to determine species with critical habitat mapped in the general vicinity of the Project (USFWS 2023a).
- Pertinent maps, scientific literature, websites, and regional flora and fauna field guides.

The literature review provided a baseline from which to inventory the biological resources potentially occurring within the Project Footprint, as well as the surrounding area. Although the inventory list of special status wildlife species was not exhaustive of all species that might be of concern for the Project Footprint, it provided a wide range of species that are representative of the wildland habitats in the area. Species occurrence and distribution information is often based on documented occurrences where opportunistic surveys have taken place; therefore, a lack of records does not necessarily indicate that a given species is absent from the Project Footprint.

## 5.2 Field Methodology

General biological surveys were performed within the Project Footprint and Future Development Areas and Associated Survey Area, which includes Lots 3, 12, 16, and 20 on February 16, 2021, by VCS biologists Wade Caffrey and Molly Burdick-Whipp and on September 21, 2022, by VCS biologists Wade Caffrey and Nathalie Munoz. During the surveys, the biologists walked the entirety of the Project Footprint and Future Development Areas and Associated Survey Area, paying special attention to those areas that had the potential to provide suitable habitat for special status species and the general distributional range of several special status wildlife species in comparison to the location of the Project.

The purpose of the 2021 and 2022 general biological survey were to note those species observed, ascertain general site conditions, and identify habitat areas that could be suitable for special status wildlife species. All wildlife species encountered visually or audibly during the field survey were identified and recorded in field notes. Signs of wildlife species including wildlife tracks, burrows, nests, scat and remains, were also recorded. Binoculars were used to aid in the identification of observed wildlife and in areas not accessible on foot. Wildlife field guides and photographs were used to assist with identification of wildlife species during the field survey, as necessary. A one-day survey cannot be used to conclusively determine presence or absence of a species; therefore, assessments of presence/absence and potential for occurrence were made based on presence of suitable habitat to support the species, diagnostic signs (burrows, scat, tracks, vocalizations, and nests), known records or occurrence within the area, known distribution and elevation range, and habitat utilization from the relevant literature.

Additional habitat assessments were conducted within the Study Area on October 20, 2022, and January 3, 2023, by Envira's Philippe Vergne, who holds a California Department of Fish and Game MOU to trap the Mohave ground squirrel, for the Mohave ground squirrel (MGS), Desert tortoise (DT), Burrowing owl (BUOW), Sharp-shinned hawk, Loggerhead shrike, and Le Conte's thrasher. The January 2023 survey report, which includes site photographs, is included as Appendix B.

## 5.3 Results/Impacts

Representative photographs of the Project Footprint and Future Development Areas and Associated Survey Area are included as Appendix A. A total of 16 wildlife species or signs thereof were observed within the Project Footprint and Future Development Areas and Associated Survey Area during the 2021, 2022, and 2023 biological surveys and are listed in Appendix C.

### 5.3.1 Sensitive Wildlife Species with Potential to Occur

Sensitive wildlife species include the following classifications: federally or state listed threatened or endangered species, California species of special concern, and fully protected and protected species (as designated by CDFW). Species with the potential to occur onsite were analyzed based on distribution, habitat requirements, and existing site conditions.

No special status animal species were observed within the Project Footprint and Future Development Areas and Associated Survey Area during the 2021 and 2022 surveys. However, San Diego black-tailed jackrabbit was observed during the January 2023 survey. Three special status species were considered to have at least a moderate potential to occur within the Project Footprint and Future Development Areas and Associated Survey Area including Bendire's thrasher (*Toxostoma bendirei*), LeConte's thrasher, and Southern grasshopper mouse (*Onychomys torridus ramona*).

All other special status wildlife species analyzed exhibit a low potential to occur within the Project Footprint and Future Development Areas and Associated Survey Area (Appendix D). Although Crotch bumble bee (*Bombus crotchii*), Mohave ground squirrel, burrowing owl, coast horned lizard (*Phrynosoma coronatum*), loggerhead shrike, desert tortoise, and legless lizard (*Anniella pulchra*) were determined to have potential to occur per the CNDDB review, following the habitat assessments conducted by VCS and Envira, these species were determined to have low or no potential to occur within the Project Footprint and Future Development Areas and Associated Survey Area. Therefore, a detailed analysis is not included in the text of this document but can be found in Appendix D. Due to mobility associated with many special status wildlife species, including those not present or with low potential to occur within the Project Footprint, MM BIO-2 and MM BIO-3 are recommended to avoid impacts to sensitive species, such as the Mohave ground squirrel, desert tortoise, and burrowing owl. Impacts within the Project Footprint to other sensitive wildlife species are considered less than significant.

#### 5.3.1.1 Southern Grasshopper Mouse

The southern grasshopper mouse is a CDFW Species of Special Concern. This species occurs in desert areas, especially in scrub habitats with friable soils for digging burrows. It is also known to occur in coastal scrub, mixed chaparral, sagebrush, low sage, and bitterbrush habitats. Historically, they've occurred along the coast of Southern California from south Los Angeles County through San Diego County into northwestern Baja California. There are few recent records from the Los Angeles Basin, Riverside and San Bernardino, most of Orange County, or western San Diego County. This species was not observed during the field surveys, however, there is a moderate potential for the species to occur due to the suitable habitat present onsite. Through incorporation of mitigation detailed in BIO-3, impacts to this species would be less than significant.

#### 5.3.1.2 Bendire's Thrasher

Bendire's thrasher is a CDFW Species of Special Concern, BLM Sensitive, USFWS Bird of Conservation Concern, and is on the Red Watch List (RWL) of the North American Bird Conservation Initiative (NABCI). This species occurs in the eastern Mojave areas with high numbers of *Opuntia*, cholla, or cactus. They are a summer resident in Joshua Tree National Monuments and breed in thorny shrubs and cactus in western Joshua tree woodland with scattered desert shrubs such as creosote bush and burrobush primarily in eastern San Bernardino County. This species was not observed during the field surveys, however, there is a moderate potential for the species to occur due to the suitable nesting and foraging habitat observed onsite. Through incorporation of mitigation detailed in BIO-3, impacts to this species would be less than significant.

#### 5.3.1.3 Le Conte's Thrasher

Le Conte's thrasher is a USFWS Bird of Conservation Concern, a CDFW designated Species of Special Concern and is considered BLM Sensitive. Le Conte's thrasher are uncommon to rare, but inhabit open desert wash, desert scrub, alkali desert scrub, desert succulent shrub and western Joshua tree habitat with scattered shrubs. According to the field surveys conducted in 2022 and 2023, no LeConte's thrasher or active/potentially active nests were observed in native plants in the Project Footprint and Future Development Areas and Associated Survey Area during the field survey. The potential for foraging and nesting activity is moderate. Through incorporation of mitigation detailed in BIO-3, impacts to this species would be less than significant.

### 5.3.2 Critical Habitat

The nearest critical habitat is Arroyo toad (*Anaxyrus californicus*) critical habitat located approximately 11.3 miles southeast of the Project Footprint. There will be no impacts to any USFWS designated Critical Habitat for wildlife species resulting from the Project.

### 5.3.3 Wildlife Movement

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Corridors effectively act as links between different populations of a species. An increase in a population's genetic variability is generally associated with an increase in a population's health.

Corridors mitigate the effects of habitat fragmentation by:

- Allowing wildlife to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity;
- Providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction; and
- Serving as travel routes for individual wildlife species as they move within their home ranges in search of food, water, mates, and other needs (Fahrig and Merriam 1985, Simberloff and Cox 1987, Harris and Gallagher 1989).

Wildlife movement activities usually fall into one of three movement categories:

- Dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions);
- Seasonal migration; and
- Movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover).

The Project Footprint and Future Development Areas and Associated Survey Area may serve a minor function in local wildlife dispersal and foraging due to the mixed shrub community typical of the area with predominantly native vegetation. However, the Project Footprint and Future Development Areas and Associated Survey Area show signs of historical disturbance from agricultural uses (particularly in Lots 16 and 20), grading of dirt roads, off-highway vehicles, dumping/debris, and non-native vegetation. With industrial developments north of the Project Footprint and roadways north and west of the Project Footprint, solar panels east and a dirt road west of the Associated Survey Area, the area is comprised of partially fragmented and disturbed habitat offering little cover and suitable habitat for dispersing wildlife species. However, there is open space available south of Lot 20 and the Project Footprint, north of Lot 12, and west of Lots 12, 16, and 20; therefore, wildlife movement is generally unconstrained, and the Project would not create a barrier to wildlife movement as wildlife can move through the surrounding areas of open space. Impacts to wildlife movement is considered less than significant.

### 5.3.4 Avian Nesting

The Project Footprint and Future Development Areas and Associated Survey Area have the potential to support various avian species and raptor nests due to the presence of rodent burrows, shrubs, and trees.

Additionally, some avian species nest upon the ground and there is potential for ground nesting birds to use the Project Footprint and the Future Development Areas and Associated Survey Area. Through incorporation of mitigation detailed in BIO-2, impacts would be less than significant for avian nesting.

# 6.0 JURISDICTIONAL WATERS

## 6.1 Literature Review

The following sources were reviewed to determine the potential presence or absence of jurisdictional streams/drainages, wetlands, lakes, and their location within the watersheds associated with the Project Footprint and Future Development Areas and Associated Survey Area, and other features that might contribute to federal or state jurisdictional authority located within watersheds associated with the Project Footprint and Future Development Areas and Associated Survey Area:

- National Wetlands Inventory (NWI) maps (Figure 7; USFWS 2023c). The NWI database indicates potential wetland areas based on changes in vegetation patterns as observed from satellite imagery. This database is used as a preliminary indicator of wetland habitats because the satellite data are not precise;
- USGS National Hydrography Dataset. Provides the locations of "blue-line" streams as mapped on 7.5-Minute Topographic Map coverage;
- Aerial Imagery;
- USGS 7.5-Minute Topographic Maps; and
- Natural Resource Conservation Service (NRCS) Soil Survey (Figure 8; NRCS 2023).

## 6.2 Field Methodology

During the February 2021 and September 2022 field surveys conducted by Wade Caffrey, Molly Burdick-Whipp and Nathalie Munoz, the Project Footprint and Future Development Areas and Associated Survey Area was assessed for the presence or absence of potential jurisdictional streams/drainages by walking the area and looking for evidence of water flow or ponded water.

### 6.2.1 Waters of the U.S.

During the field survey, the Project Footprint and Future Development Areas and Associated Survey Area were assessed for jurisdictional wetland and non-wetland Waters of the United States (WOUS).[1] To determine the presence of a wetland, three indicators are required: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. The RWQCB has exceptions to this methodology in situations where a site has soils and hydrology, but no vegetation is present; these areas may be considered wetlands by the RWQCB. The methodology published in the United States Army Corps of Engineers 1987 Wetland Delineation Manual and the Arid West Supplement sets the standards for meeting each of the three indicators, which normally require that 50 percent or more dominant plant species typical of a wetland, soils exhibiting characteristics of saturation, and hydrological indicators be present. Jurisdictional non-wetland WOUS in areas that may be tributary to Traditionally Navigable Waters are typically determined through the observation of an Ordinary High Water Mark (OHWM), which is defined as the "line on the

[1] On March 20, 2023, the United States Environmental Protection Agency and United States Army Corps' of Engineers' new rule concerning identification of WOUS took effect. VCS determined that this new rule would not affect the findings of this Biological Technical Report because there are no features within the Study Area currently excluded from jurisdiction that would become jurisdictional under the new rule. On May 25, 2023 the United States Supreme Court issued its decision in *Sackett v. Environmental Protection Agency,* narrowing the scope of federal jurisdiction over wetlands under the Clean Water Act.

shore established by the fluctuation of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas." Projects with impacts to Waters of the United States are regulated under Sections 401 and 404 of the Clean Water Act. Note, the RWQCB has updated their definition of a wetland to include areas that have hydric soils and wetland hydrology but lack hydric vegetation (e.g., vernal pools). This update took effect May 28, 2020.

The following guidance documents were utilized in making this determination:

- Field Guide to OHWM Determinations in the Arid West (August 2008);
- Updated OHWM Datasheet for the Field Guide to OHWM Determinations in the Arid West (July 2010); and
- Ordinary High Flows and the Stage-Discharge Relationship in the Arid West Region (2011); and
- Revised Definition of 'Waters of the United States' (March 20, 2023).

### 6.2.2 Waters of the State

During the field survey, the Project Footprint and Future Development Areas and Associated Survey Area were assessed for jurisdictional Waters of the State (WOS). The CDFW and the RWQCB take jurisdiction over WOS and Riparian/Riverine resources (California Fish and Game Code §§1600 et seq.; California Code of Regulations, Title 14, §720). Section 1602 of the FGC applies to natural rivers, streams, and lakes:

> "An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake."

The Project Footprint and Future Development Areas and Associated Survey Area were assessed for jurisdictional WOS during the field survey using guidance from Section 1600 of the FGC and Brady and Vyverberg (2013), which defines a stream as "a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic hydrologic course regime, and where the width of its course can reasonably be identified by physical or biological indicators". CDFW regulates wetland areas only to the extent that those wetlands are part of a stream, river, or lake as defined by the CDFW.

### 6.2.3 Mapping Techniques

Prior to the field surveys, Google Earth and the National Wetlands Inventory (NWI) Online Mapper were used to review aerials of the Study Area and identify any potential jurisdictional waters of the U.S. features. Following the field surveys, ESRI ArcMap and Google Earth were used in combination with the field survey results to delineate and map relevant habitats and jurisdictional waters. The resulting Geographic Information System data was then used to quantify the extent of each feature.

## 6.3 Results/Impacts

### 6.3.1 National Wetland Inventory

No aquatic features are mapped within the Project Footprint or Future Development Areas and Associated Survey Area boundary on the USFWS's NWI (USFWS [2023]).

### 6.3.2 Hydrology

A two-pipe culvert southeast of the Future Development Areas and Associated Survey Area was observed during the field surveys. During heavy storm events, water may flow north into an earthen drainage along the eastern edge of the Future Development Areas and Associated Survey Area along Lots 12, 16, and 20 until it reaches a culvert adjacent to Lot 12 within the associated survey area and leaves the Future Development Areas and Associated Survey Area to the east. The culvert connects to an existing earthen channel across 10th Street East, directing flows to the northeast to Blackbird Drive. The Project Footprint and Future Development Areas and Associated Survey Area sheet flow easterly toward 10th Street East where rainfall collects at the intersection of Avenue O-12 into the existing earthen channel that captures these flows and also directs them to the northeast to Blackbird Drive. Runoff from off-site areas is currently being captured by the peripheral streets that capture the flow and direct them primarily east and then north to the existing natural earthen channel at the intersection of Avenue O-12 and 10th Street East. The nearest "Blue line stream" is located east and outside of the Project Footprint and Future Development Areas and Associated Survey Area along 10th Street East and traverses to the northeast. This wash's hydrology outside of the Project Footprint and Future Development Areas and Associated Survey Area does not have the required volume of storm water discharge to affect the Project Footprint or Future Development Areas and Associated Survey Area in a 100-year event.

### 6.3.3 Soils

The United States Department of Agriculture NRCS (NRCS 2023) identifies 1 soil type within the Project Footprint and 2 soil types present within the Future Development Areas and Associated Survey Area, as shown in Figure 8 and described below:

- Adelanto coarse sandy loam, 2 to 5 percent slopes: Adelanto coarse sandy loam is characterized as stratified loamy sand to coarse sandy loam. These soils are typically terrace and alluvial fan deposits and are well drained with very low runoff. The sediments are derived mostly from granite and closely related rocks. The Adelanto soils have brown and light brown slightly acid and neutral sandy loam A horizons, reddish brown, moderately alkaline somewhat finer textured sandy loam B2t horizons and brown somewhat coarser sandy loam alluvial C horizons. Well drained; runoff is low to very low; permeability is moderate to moderately rapid. This soil is found in the Project Footprint, a majority of 12, and western portions of Lot 16 and Lot 20.
- Hesperia fine sandy loam, 0 to 2 percent slopes: Hesperia fine sandy loam is characterized as fine sandy loam, sandy loam, and coarse sandy loam. These soils are typically alluvial fan deposits and consist of very deep, well drained soils that formed in alluvium derived primarily from granite and related rocks. Hesperia soils are on alluvial fans, valley plains and stream terraces. Organic matter content is very low and decreases regularly with increasing depth. The soil is typically calcareous between depth of 16 and 40 inches. This soil is found on the eastern portion of Lot 12, and the eastern majority of Lot 16 and Lot 20 and has a slope to the northeast of 0.25 +/-%.

### 6.3.4 Jurisdictional Waters

The Study Area is within the Antelope Valley watershed and contributes to Rosamond Lake, a dry lake that is not considered a Traditionally Navigable Water, therefore, no features within the Project Footprint or Future Development Areas and Associated Survey Area would be a WOUS.

WOS under the jurisdiction of CDFW and RWQCB were found on the eastern edge of the Future Development Areas and Associated Survey Area outside of Lots 12, 16, and 20 (Figure 9). No WOS were found within the Project Footprint. The two-pipe culvert southeast of the Future Development Areas and Associated Survey Area, which flows along the eastern edge of the area and through a culvert adjacent to Lot 12, is considered a jurisdictional non-riparian WOS. The culvert connects via an underground crossing of 10th Street East to an existing WOS earthen channel, which then flows to the northeast toward Blackbird Drive. Evidence of an ordinary high-water mark and flowing water was observed. There are no riparian WOS within the Future Development Areas and Associated Survey Area.

WOS within the Future Development Areas and Associated Survey Area are detailed in Table 4.

Table 4. Waters of the State Within the Future Development Areas and Associated Survey Area

| Jurisdictional WOS | Acres | Linear Feet |
|---|---|---|
| Non-Riparian WOS | 0.11 | 739 |
| Riparian WOS | - | - |
| **Total** | **0.11** | **739** |

There are no jurisdictional waters within the Project Footprint. All 0.11 acres of WOS within the Future Development Areas and Associated Survey Area will not be impacted during Project construction activities. Direct impacts to Waters of the State (WOS) are not expected to occur as a result of Project implementation and no mitigation is recommended prior to the start of grading of the Project Footprint.

# 7.0 MITIGATION MEASURES

In order to facilitate the correct implementation of the mitigation efforts outlined in this section, two professional categories are referenced: qualified biologists and biological monitors. Those terms are further defined below.

- Qualified Biologist: One who has met all of the following minimum qualifications: (a) bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field; (b) at least 3 years of experience in field biology or current certification of a nationally recognized biological society; and (c) at least 1 year of field experience with biological resources found in or near the project region.
- Biological Monitor: A biological monitor is an individual experienced with construction level biological monitoring and who is able to recognize species in the project area and who is familiar with the habits and behavior of those species. Biological monitors shall have academic and professional experience in biological sciences and related resource management activities as it pertains to this project.

MM BIO-1: Prior to project grading, the applicant will confirm the western Joshua tree census. A survey from a qualified biologist shall be conducted pursuant to Section 1927.3 (a) (1-4) of the WJTCA and submitted to CDFW with the appropriate fee to obtain an Incidental Take Permit. If any additional trees are identified as part of this survey, additional fees will be paid subject to 1927.3 (d)(2) (A-B) of the WJTCA.

MM BIO-2: Nesting Bird Surveys. Vegetation removal activities shall be conducted outside the nesting season (September 1 to February 14 for songbirds; September 1 to January 14 for raptors) to avoid potential impacts to nesting birds. Any construction activities that occur during the season (February 15 to August 31) will require that all suitable habitats be thoroughly surveyed for the presence of nesting birds by a Qualified Biologist within three days before commencement of vegetation clearing/ground disturbance activities depending on which season work falls within. If any active nests are detected, a buffer of 500 feet of an active threatened or endangered species or raptor nest, 300 feet of other sensitive species (non-listed), and 100 feet of most common species will be delineated, flagged, and avoided until the nesting cycle is complete. The buffers may be modified and/or other recommendations proposed as determined appropriate by the Biological Monitor to minimize impacts.

MM BIO-3: Sensitive Species Surveys. A pre-construction presence/absence survey for sensitive species, including burrowing owl, Mohave ground squirrel, desert tortoise, southern grasshopper mouse, shall be conducted by a Qualified Biologist in compliance with CDFW standards within 30 days prior to any on-site ground disturbing activity. In the event these species are not identified within the Project Footprint, no further mitigation is required. If the Project Footprint is left undisturbed for more than 30 days, another pre-construction survey will be necessary to ensure sensitive species have not colonized the site since it was last disturbed.

If during the pre-construction survey, sensitive species are found to occupy the site, the City may require the Project Applicant to take the following actions to avoid/minimize impacts prior to ground disturbance:

- Active nests, roosts, burrows for sensitive species within the areas scheduled for disturbance or degradation shall be avoided with a minimum 250-foot buffer until the area is determined inactive by the Biological Monitor, subject to modification by the Biological Monitor and approved by the City.
- Passive or active relocation of sensitive species may occur with approval of the City. A Qualified Biologist to prepare a plan for relocating the species to a suitable site. The relocation plan shall include the following:
  - The location of the species proposed for relocation;
  - The location of the proposed relocation site;
  - The number of species involved and the time of year when the relocation is proposed to take place;
  - The name and credentials of the biologist who will be retained to supervise the relocation;
  - The proposed method of capture and transport for the species to the new site;
  - A description of site preparation at the relocation site; and
  - A description of efforts and funding support proposed to monitor the relocation.

# 8.0 CUMULATIVE IMPACTS

Cumulative impacts are defined as the direct and indirect effects of a proposed project which, when considered alone, would not be deemed a substantial impact, but when considered in addition to the impacts of related projects in the area, would be considered significant. “Related projects” refers to past, present, and reasonably foreseeable probable future projects, which would have similar impacts to the proposed Project. CEQA deems a cumulative impact analysis to be adequate if a list of “related projects” is included in the EIR or the proposed project is consistent with an adopted general, specific, master, or comparable programmatic plan [Section 15130(b)(1)(B)]. CEQA also states that no further cumulative impact analysis is necessary for impacts of a proposed project consistent with an adopted general, specific, master, or comparable programmatic plan [Section 15130(d)].

The majority of the cumulative impact study area consists of developed areas to the north and southwest. Vacant land is located to the east and west following the roads that separate the Project Footprint from the vacant land. Due to the relatively disturbed and fragmented nature of the Project Footprint, its proximity to commercial and industrial development, and compliance with the WMP, impacts are not considered to be cumulatively significant with mitigation incorporated.

# 9.0 BMPS AND AVOIDANCE MEASURE RECOMMENDATIONS

Implementation of general BMPs is recommended to the extent practical. Key aspects of the BMPs are to clearly delineate the limits of disturbance, use properly maintained equipment, properly implement and monitor water quality BMPs, avoid use of chemicals near sensitive areas, develop procedures for minimizing the likelihood of spills and to control sediment, ensure worker safety, and minimize impacts to sensitive biological resources onsite including sensitive wildlife species. Standard BMPs will be implemented including compliance with the State Water Resources Control Board Stormwater requirements for the control of fugitive dust and management of water quality. The following project design features are recommended:

- Work area limits will be clearly defined and visible. All construction boundaries will be marked with flagging, staking, or fencing.
- Water Pollution and erosion control measures should be developed and implemented in accordance with RWQCB requirements.
- All vehicles and equipment will be in proper working condition and will be checked regularly for leaks prior to use to ensure that there is no potential for fugitive emissions of motor oil, fuel, antifreeze, hydraulic fluid, grease, or other hazardous materials.
- Equipment storage, fueling and staging areas shall be located within upland areas with minimal risks of direct drainage into jurisdictional waters or other sensitive habitats.
- Any litter or rubbish will be collected and disposed of in appropriate containers with lids to avoid attracting wildlife species to the Project Footprint.
- Any night lighting shall be shielded and directed away from the jurisdictional waters located within the main drainage east of 10$^{th}$ Street East.
- Dust control measures, such as watering trucks, shall be implemented during construction to reduce the impact of fugitive dust on the adjacent sensitive habitats.
- Runoff from roofs and other impervious areas will be directed into landscaping areas where feasible.
- No species included in the CAL-IPC inventory (Cal-IPC, 2023) will be planted within the landscaped areas of the Project.

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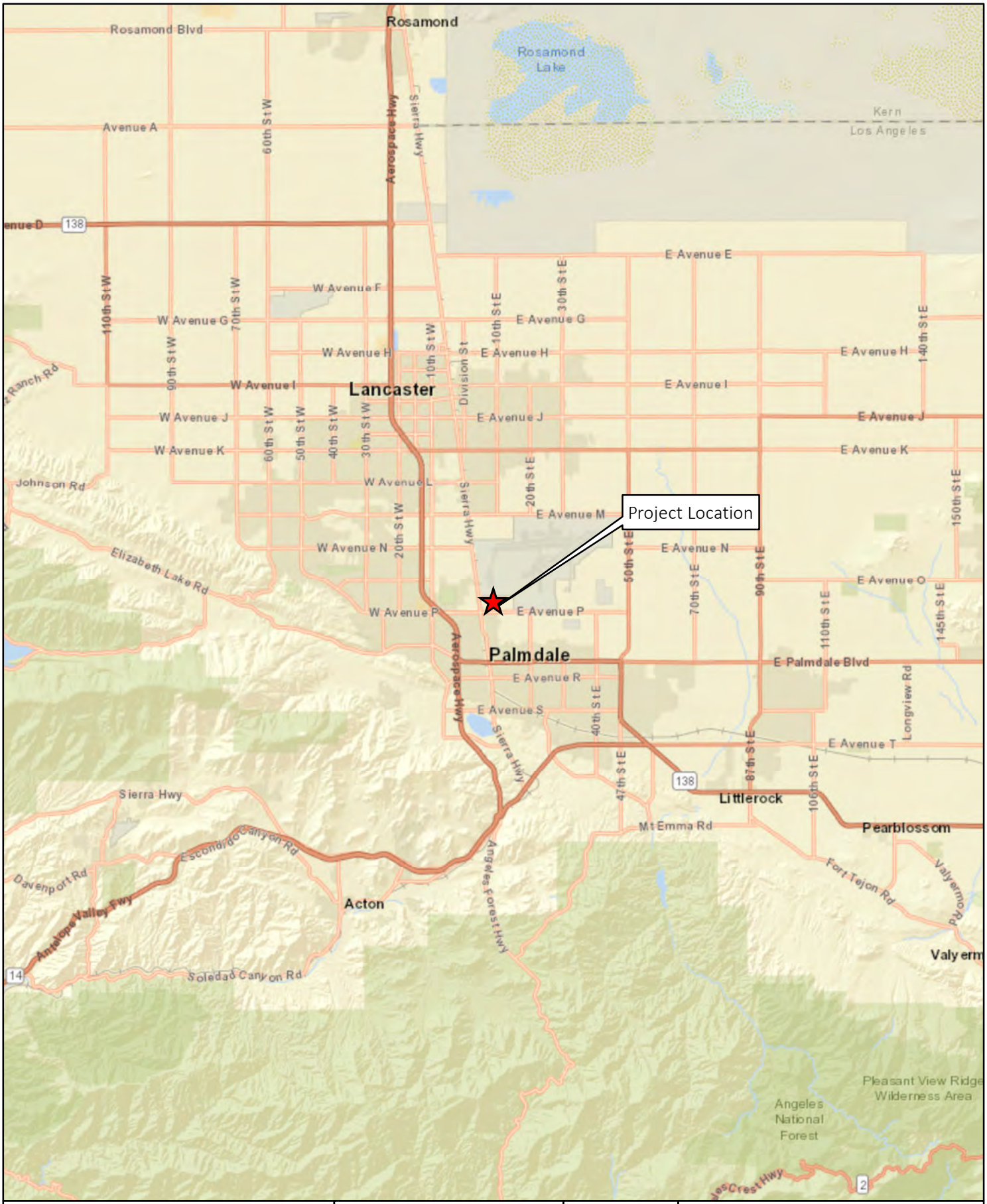



Prepared By:

VCS Environmental

Map Created: August 2023
Data Sources: ESRI, Red Brick, County of Los Angeles



0 12,000 24,000

Feet

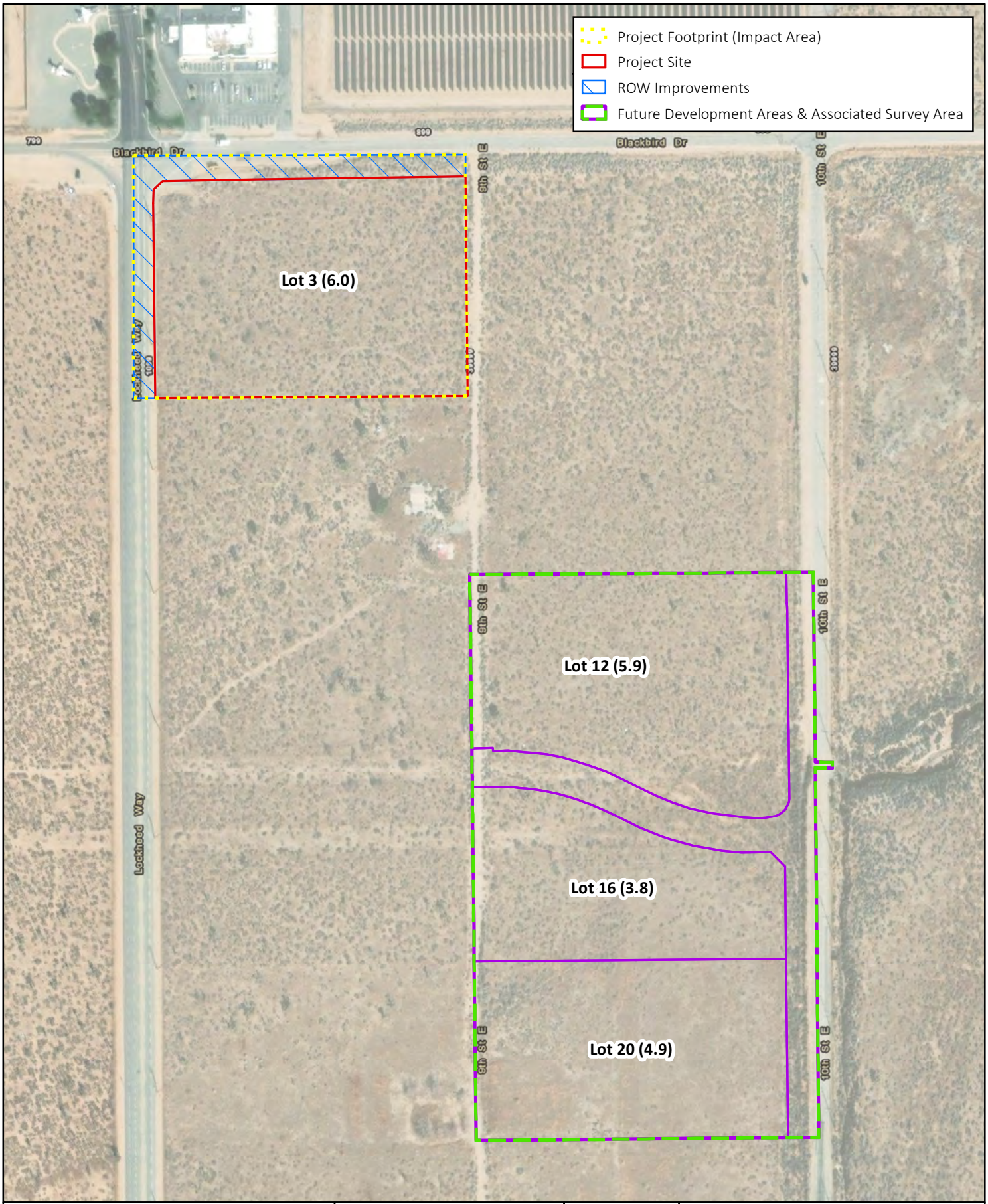
1:250,000

N
W E
S

PBP Industrial Project

Figure 1

Regional Map




Prepared By:
VCS Environmental

Map Created: August 2023
Data Sources: ESRI, Red Brick, County of Los Angeles

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User

0 150 300
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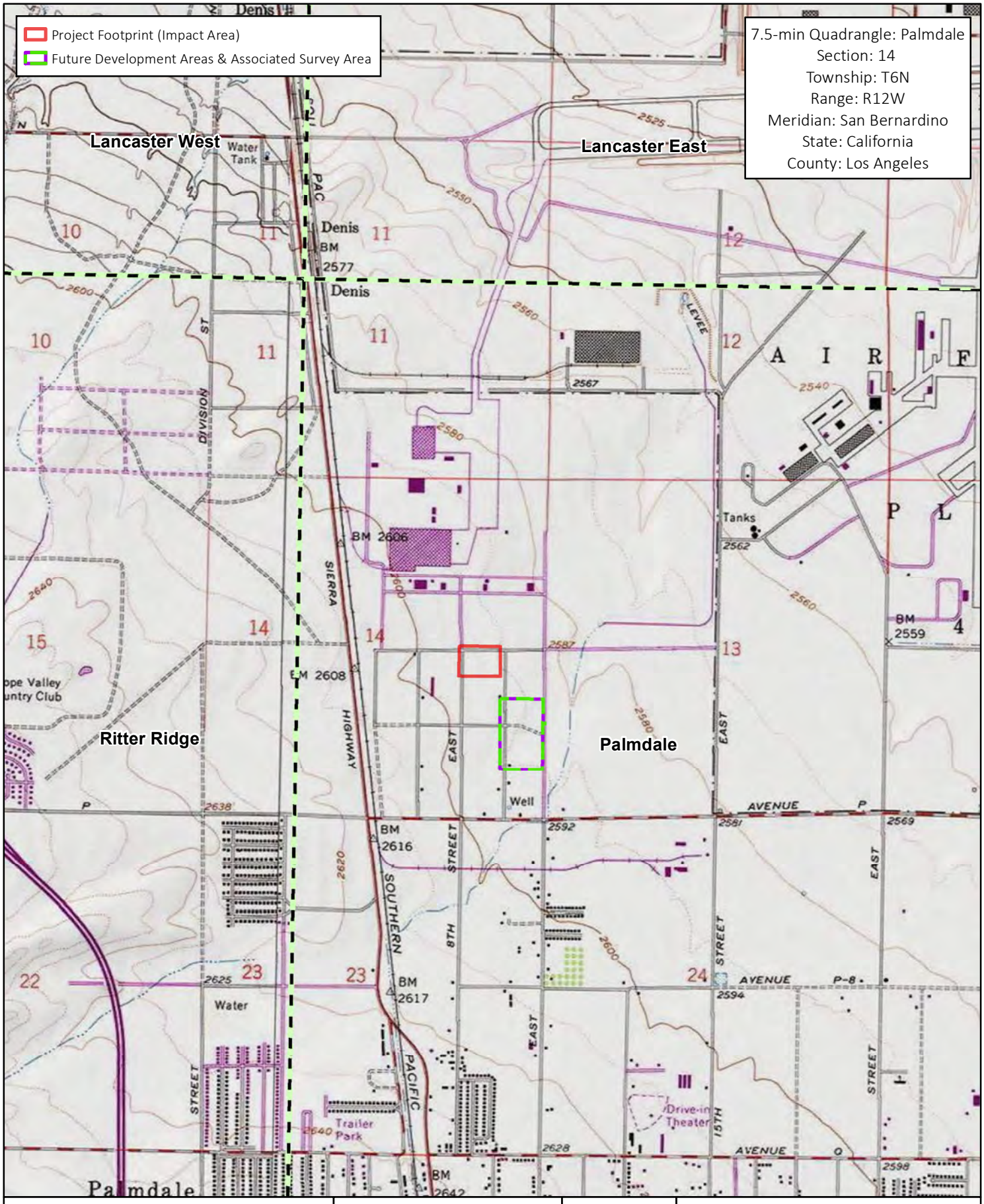
PBP Industrial Project

Figure 2

Aerial Map


Project Footprint (Impact Area)
Future Development Areas & Associated Survey Area
7.5-min Quadrangle: Palmdale
Section: 14
Township: T6N
Range: R12W
Meridian: San Bernardino
State: California
County: Los Angeles
Lancaster West
Lancaster East
Ritter Ridge
Palmdale
Denis
BM 2577
BM 2606
BM 2608
BM 2559
BM 2616
BM 2617
BM 2642
Water Tank
Tanks
Well
Water
Trailer Park
Drive-in Theater
SIERRA HIGHWAY
SOUTHERN PACIFIC
DIVISION ST
EAST
STREET
AVENUE
LEVEE
AIRFIELD
Prepared By:
VCS Environmental
Map Created: August 2023
Data Sources: ESRI, Red Brick, County of Los Angeles, USGS
Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed
0 1,200 2,400
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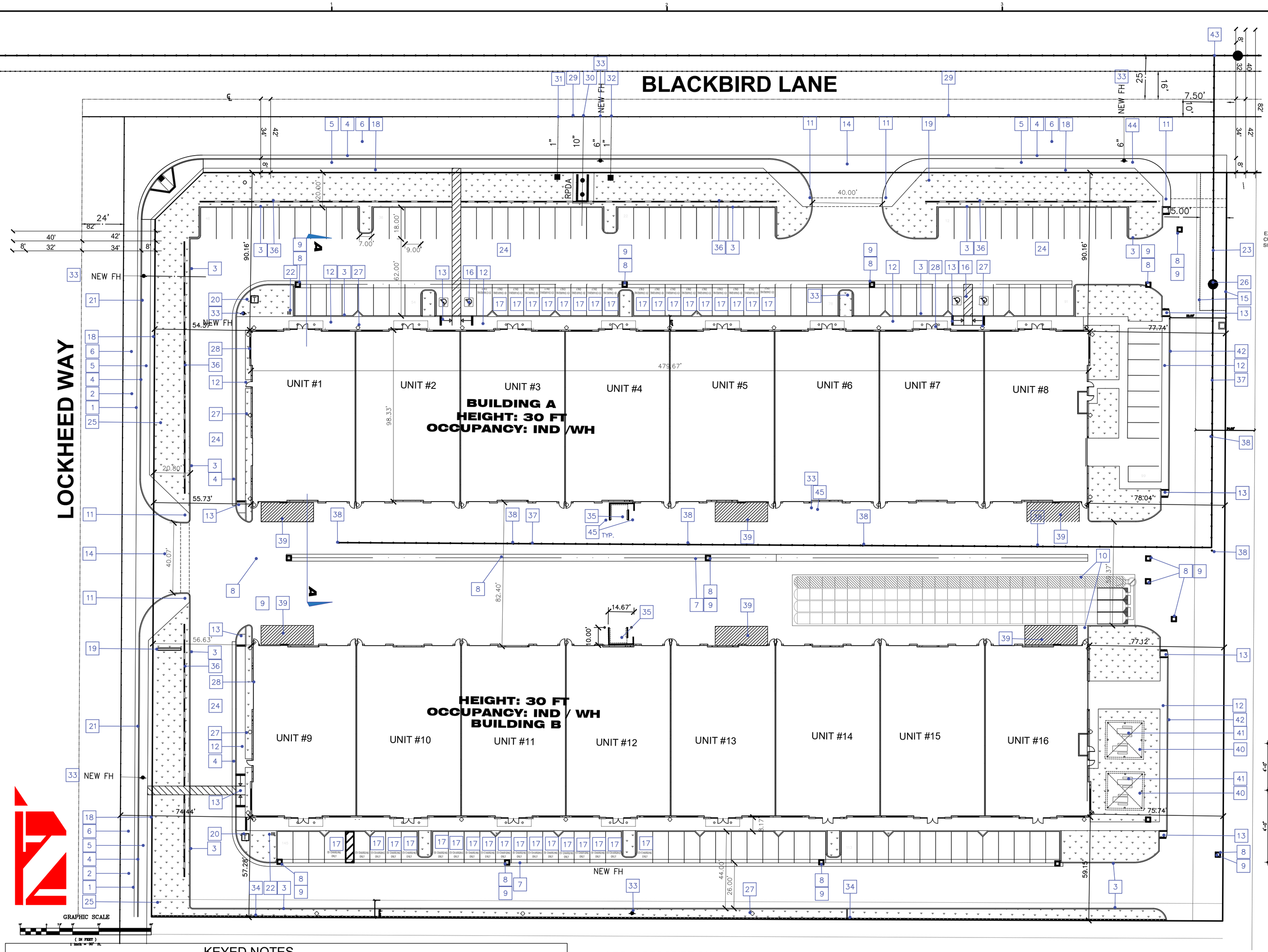
PBP Industrial Project
Figure 3
USGS Topographic Map

# CITY OF PALMDALE
## SPR 20-011




## KEYED NOTES

| | |
|---|---|
| 1 | SAWCUT & REMOVE EXISTING CURB & GUTTER TO NEAREST JOINTS. |
| 2 | SAWCUT & REMOVE 2' OF EXISTING PAVEMENT |
| 3 | PROPOSED 6" CURB SPPWC STD. PLAN 120-1 |
| 4 | PROPOSED 6" CURB & GUTTER, SPPWC STD. PLAN 120-2 |
| 5 | PROPOSED NEW PUBLIC SIDEWALK |
| 6 | PROPOSED STREET PAVING |
| 7 | PROPOSED 4-FT WIDE VALLEY GUTTER |
| 8 | PROPOSED CATCH BASIN WITH CLARIFIER |
| 9 | PROPOSED 8-16 INCH STORM DRAIN |
| 10 | PROPOSED UNDERGROUND DRAINAGE BASIN |
| 11 | PROPOSED 0" FOC CURB RAMP |
| 12 | PROPOSED ON-SITE SIDEWALK |
| 13 | PROPOSED ADA ACCESS RAMP |
| 14 | PROPOSED 40' WIDE DRIVEWAY, CITY OF PALMDALE STD. NO. C-1 |
| 15 | PROPOSED 15' WIDE PUBLIC SEWER EASMENT |
| 16 | PROPOSED ADA PARKING PER DETAIL THIS SHEET |
| 17 | PROPOSED ELECTRIC CAR CHARGING PARKING STALL |
| 18 | PROPOSED 2-FT ROAD DEDICATION |
| 19 | PROPOSED MONUMENT SIGN LOCATION |
| 20 | PROPOSED TRANSFORMER |
| 21 | PROPOSED POWER POLE TO BE REMOVED AND PLACED UNDERGROUND |
| 22 | (5) SLOT BICYCLE RACK LOCATION |
| 23 | PROPOSED 8" CLAY PIPE SEWER LINE |
| 24 | PROPOSED PRIVATE PCC DRIVEWAY AND FIRE ACCESS LANE |
| 25 | PROPOSED LANDSCAPING AREAS SEE LANDSCAPING PLAN ATTACHED. |
| 26 | PROPOSED 4/FT DIAMETER SEWER MANHOLE |
| 27 | PROPOSED EXTERIOR WALL MOUNTED LIGHTING |
| 28 | PROPOSED ILLUMINATED ADDRESS SIGN |
| 29 | PROPOSED PUBLIC WATER MAIN (LAC CSA 70) |
| 30 | PROPOSED 6 TO 8-INCH RPDA AND FDC |
| 31 | PROPOSED 1-INCH DOMESTIC WATER METER |
| 32 | PROPOSED 1-INCH IRRIGATION METER |
| 33 | PROPOSED PUBLIC FIRE HYDRANT |
| 34 | PROPOSED 6-FT DECORATIVE CMU WALL |
| 35 | PROPOSED TRASH ENCLOSURE |
| 36 | PROPOSED 3 FOOT HIGH CONCRETE BLOCK WALL OR LANDSCAPE HEDGE |
| 37 | PROPOSED 6-INCH PRIVATE SEWER LINE |
| 38 | PROPOSED 4-INCH PVC SEWER CLEANOUT |
| 39 | PROPOSED 11 BY 30-FT LOADING ZONES |
| 40 | PROPOSED COMMON AREA SHADE STRUCURE |
| 41 | PROPOSED ADA COMPLIANT PICNIC BENCH |
| 42 | PROPOSED ROLLED 6-INCH CURB |
| 43 | PROPOSED CONNECTION TO TRUNK SEWER LINE |
| 44 | PROPOSED PARKWAY DRAIN PER SPPWC STD 151 |
| 45 | PROPOSED BOLLARDS PER DETAIL HEREON |

## LEGAL DESCRIPTION

PARCEL 3, IN THE CITY OF PALMDALE, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON A RECORD OF SURVEYS MAP FILED IN BOOK 65 PAGE 19 OF RECORD OF SURVEYS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

## PARKING SUMMARY

REQUIRED PARKING PER G.F.A.:

| AREA | RATIO | S.F. | # SPACES |
|---|---|---|---|
| WAREHOUSE INCLUDING UP TO 20% OFFICE | 0.5:1000 | 94,560 | 48 |
| MEZZANINE STORAGE | 0.5:1000 | 23,640 | 12 |
| | | | |
| TOTAL REQUIRED PARKING SPACES | | 118,200 | 60 SPACES |

PROVIDE PARKING:

| | | |
|---|---|---|
| STANDARD 9'X18' PARKING SPACES | = | 110 SPACES |
| COMPACT 8.5'X15' PARKING SPACES | = | 0 SPACES |
| CAR EV PARKING SPACES | = | 19 SPACES |
| CAR EVSE PARKING SPACES | = | 6 SPACES |
| ADA 9'X18' PARKING SPACES (INCLUDING 6 ADA EV. SPACES) | = | 11 SPACES |
| TOTAL PROVIDED VEHICLE PARKING SPACES | = | 146 SPACES |
| TRUCK PARKING: | | |
| LOADING 12'x50' SPACES | = | 6 SPACES |
| TOTAL PROVIDED PARKING | = | 146 SPACES |

## SITE DATA

SITE AREA

| AREA | SQ. FOOTAGE |
|---|---|
| NET LAND AREA (6.01 ACRES) | 261,901 S.F |
| GROSS LAND AREA (6.07 ACRES) | 264,342 S.F |

PROPOSED LAND AREA & COVERAGE

| AREA | SQ. FOOTAGE | % COVERAGE |
|---|---|---|
| BUILDING AREA GLA | 94,560 S.F | 36.11% |
| COMMON AREA | 800 SF | 00.31% |
| CONCRETE HARDSCAPE | 139,528 SF | 53.28% |
| LANDSCAPED AREA | 27,013 SF | 10.31% |
| TOTAL NET LAND AREA COVERAGE | 261,901 S.F. | 100% |

## SCOPE OF WORK

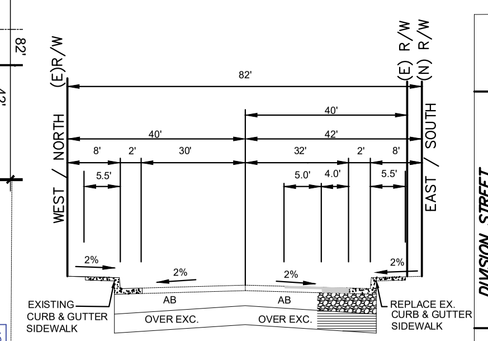
TO CONSTRUCT A 118,200 SQ.FT. INDUSTRIAL WAREHOUSE BUILDING W/ OFFICES (2 LEVELS) AND 146 PARKING SPACES

## DEVELOPMENT CODE:

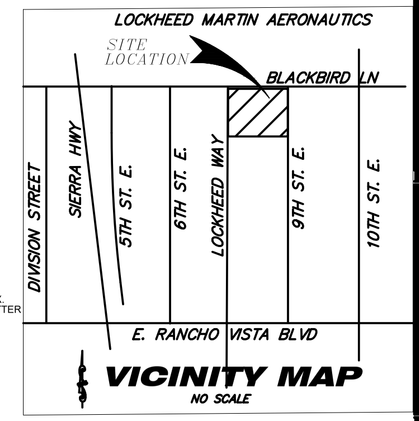
CODES: 2022 CALIFORNIA BUILDING CODE
2022 CALIFORNIA RESIDENTIAL CODE
2022 CALIFORNIA GREEN BUILDING STANDARDS
2022 CALIFORNIA ELECTRICAL CODE, NEC 2005
2022 CALIFORNIA MECHANICAL CODE
2022 CALIFORNIA PLUMBING CODE
2022 CALIFORNIA COUNTY FIRE CODE
2022 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS (CBEES)

## DEVELOPMENT SUMMARY:

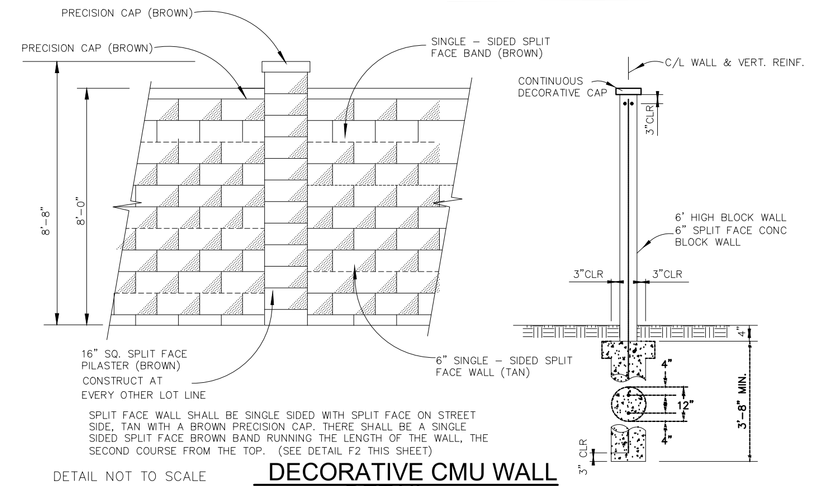
| | |
|---|---|
| ZONING: | INDUSTRIAL -HI |
| LAND USE: | INDUSTRIAL(IND) |
| PROJECT TYPE: | MULTI-TENANT INDUSTRIAL |
| BUILDING TYPE | TYPE IIB |
| OCCUPANCY: | B, F1, S1 |
| TYPE OF CONSTRUCTION: | SPRINKLERED |




BLACKBIRD AVE / LOCKHEAD WAY

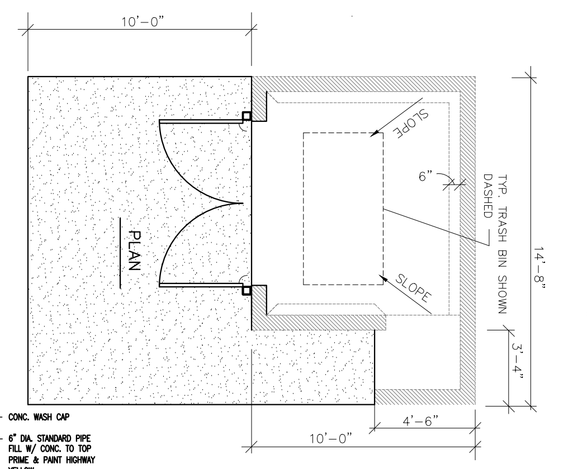


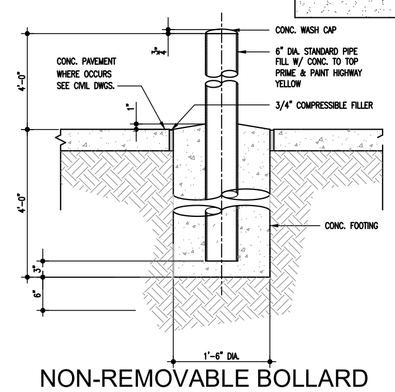

VICINITY MAP
NO SCALE



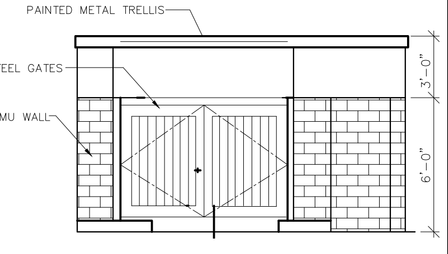

DETAIL NOT TO SCALE

DECORATIVE CMU WALL DETAIL

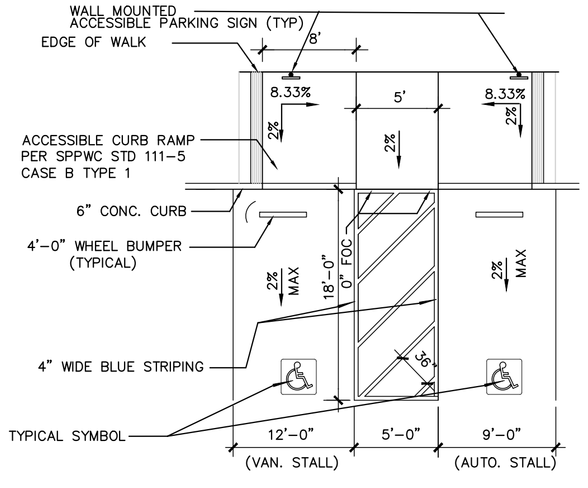



NON-REMOVABLE BOLLARD DETAIL
DETAIL NOT TO SCALE




TRASH ENCLOSURE DETAIL
DETAIL NOT TO SCALE




HANDICAP ACCESSIBLE PARKING STALLS
DETAIL NOT TO SCALE


ARCHITECT

RED BRICK SOLUTION

CONSULTANT:
RED BRICK SOLUTION,LLC
CONSULTING ENGINEERS & ARCHITECTS
331 S. RIO GRANDE STREET
SUITE 203
SALT LAKE CITY, UTAH 84101
T 801.224.5335
M 661.816.5179

DAVID W. LARSON RCE C52991 DATE

REGISTRATION

REGISTERED PROFESSIONAL ENGINEER
DAVID W. LARSON
No. C 52991
CIVIL
STATE OF CALIFORNIA


PROJECT

SITE PLAN
INDUSTRIAL BUILDINGS
SE CORNER OF LOCKHEED WAY AND BLACKBIRD LANE
LOT 3

APPLICANT DEVELOPER

AERO PATRIOT, LLC.
445 WEST PALMDALE BLVD.,
SUITE P PALMDALE, CA. 93551

TEL: 818-212-9346

REVISIONS

| MARK | DATE | DESCRIPTION |
|---|---|---|
| | | |

| | |
|---|---|
| PROJECT # | RBS JN 180002 |
| DRAWN BY: | DWL |
| CHECKED BY: | DWL |
| PLOT DATE: | 06/22/2023 |

APPLICATION TYPE:

**DESIGN ADVISORY BOARD REVIEW**

APN #

**3022-026-003**

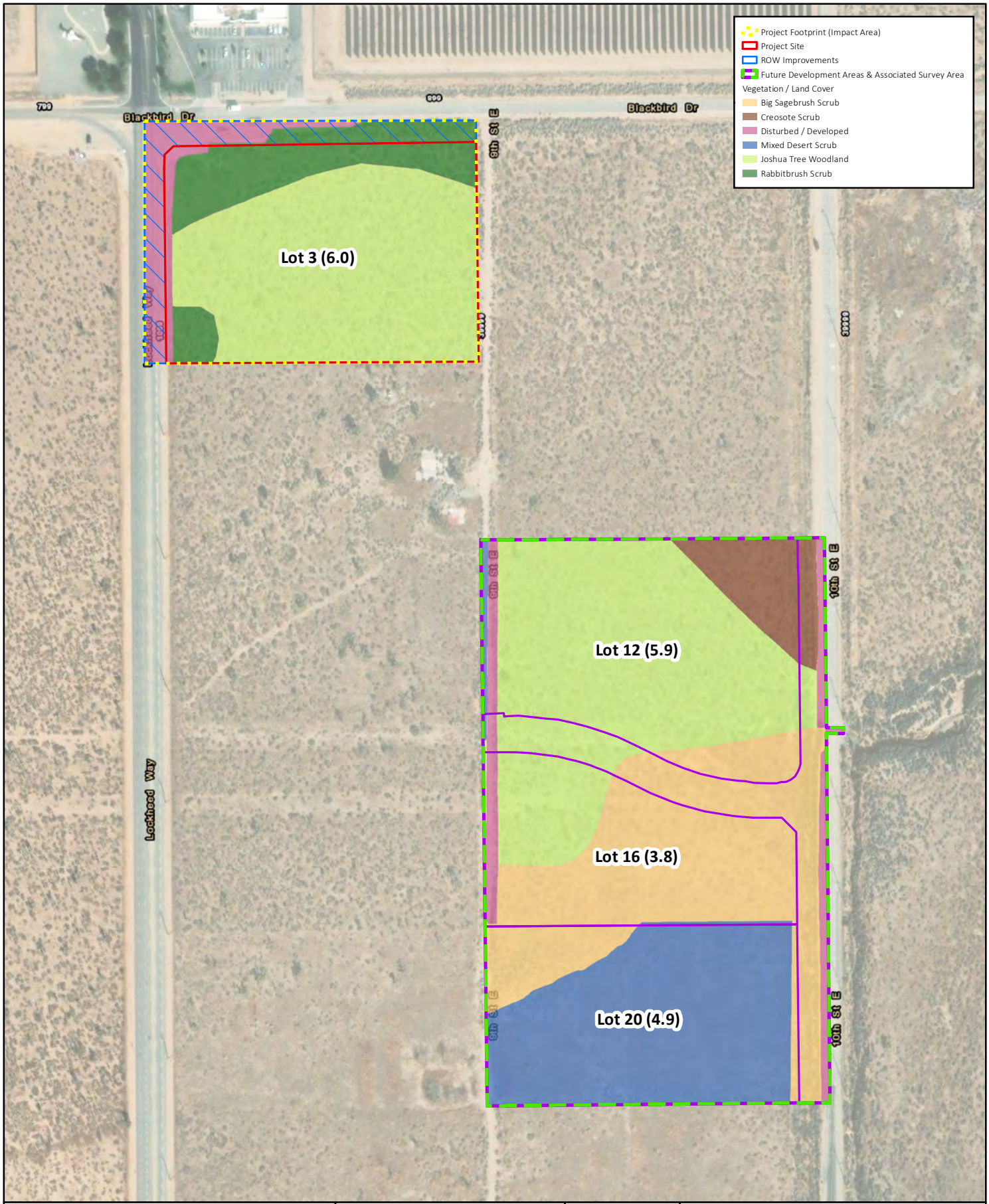
SHEET TITLE

**SITE PLAN**
**A0.1**

SHEET NUMBER

**2 of 11**

CCL DWG FILE: C:\Users\Dovek\OneDrive - Red Brick Solution\Documents\projects\180002\180002 SP 08-24-2023.dwg




Prepared By:

VCS Environmental

Map Created: August 2023
Data Sources: ESRI, Red Brick, County of Los Angeles

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User

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Feet

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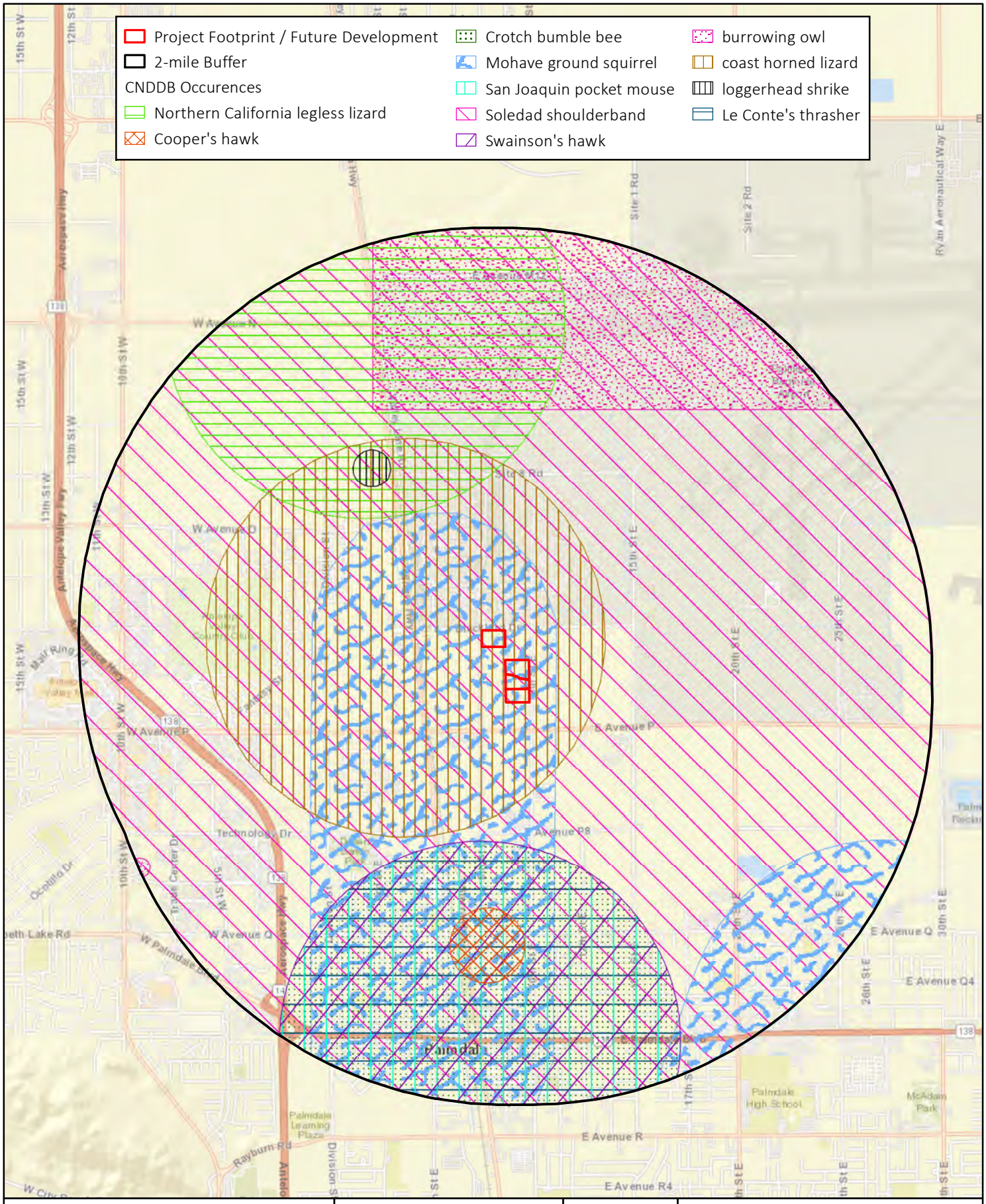
PBP Industrial Project

Figure 5

Vegetation Map




Prepared By:

VCS Environmental

Map Created: February 2023
Data Sources: ESRI, County of Los Angeles, CDFW, USFWS

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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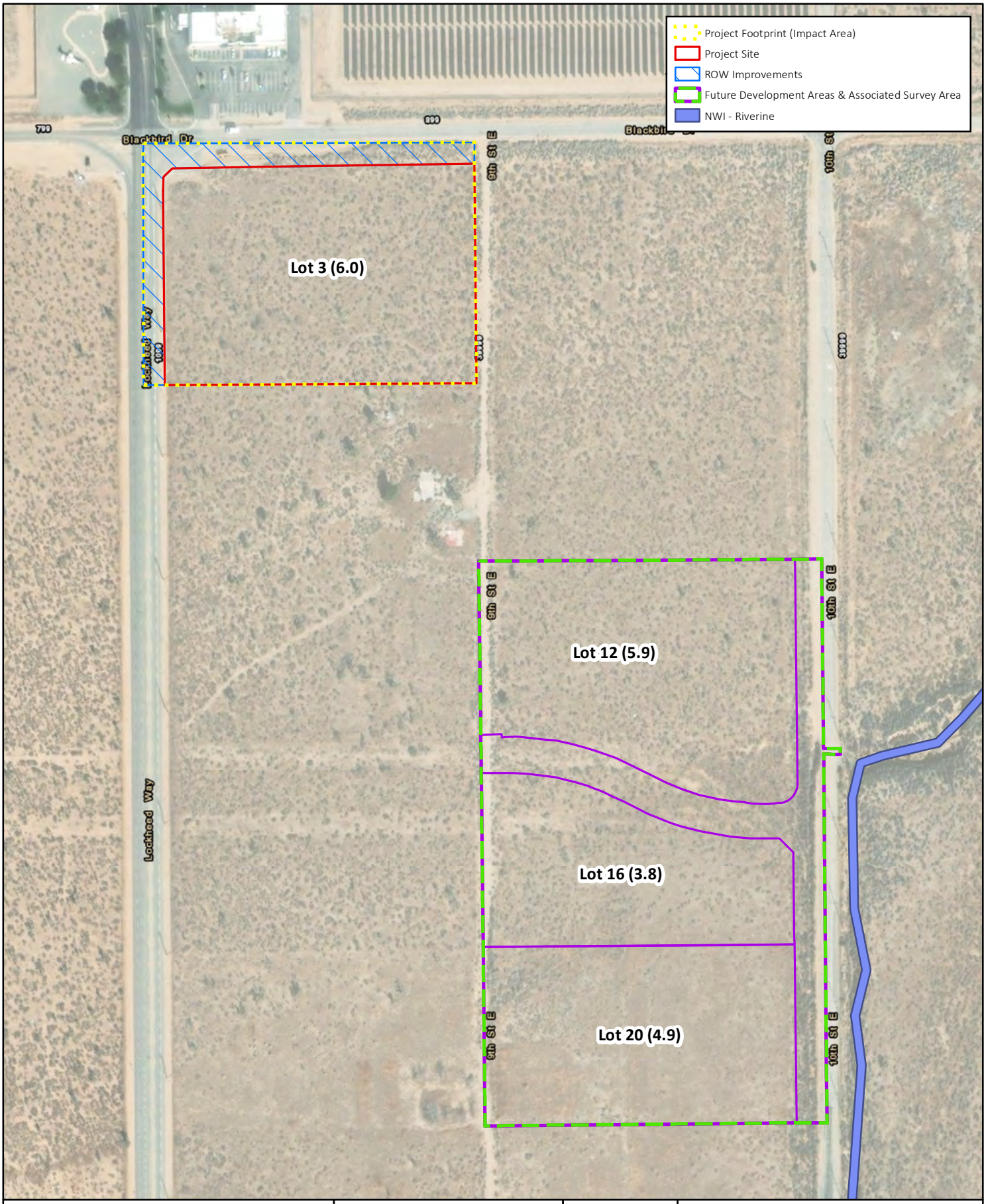
PBP Industrial Project

Figure 6

CNDDB Occurences




Prepared By:
VCS Environmental

Map Created: August 2023
Data Sources: ESRI, Red Brick, County of Los Angeles, USACE

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User

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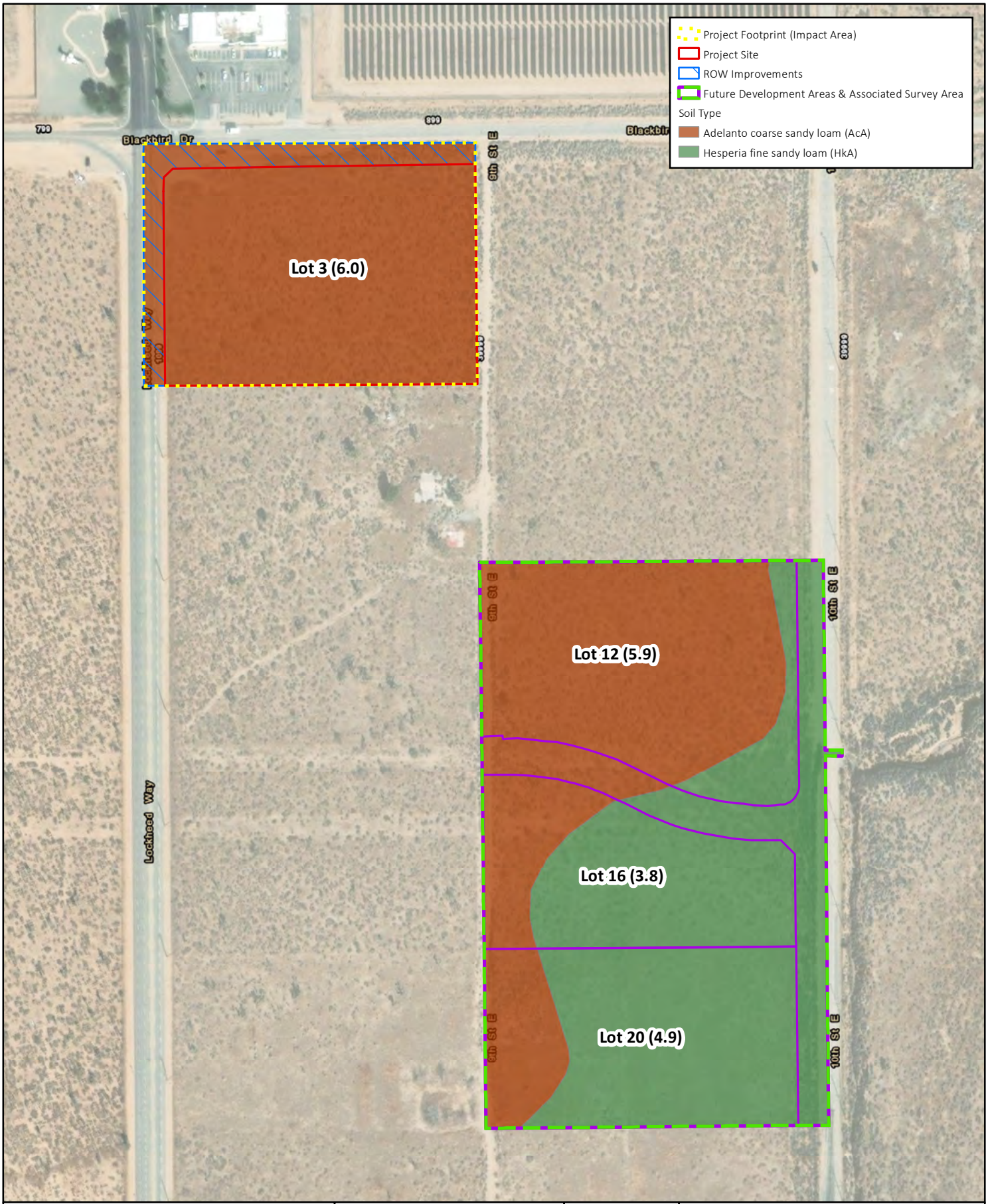
Figure 7

PBP Industrial Project
National Wetlands Inventory (NWI) Map




Prepared By:
VCS Environmental

Map Created: August 2023
Data Sources: ESRI, Red Brick, County of Los Angeles, USDA

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User

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Feet
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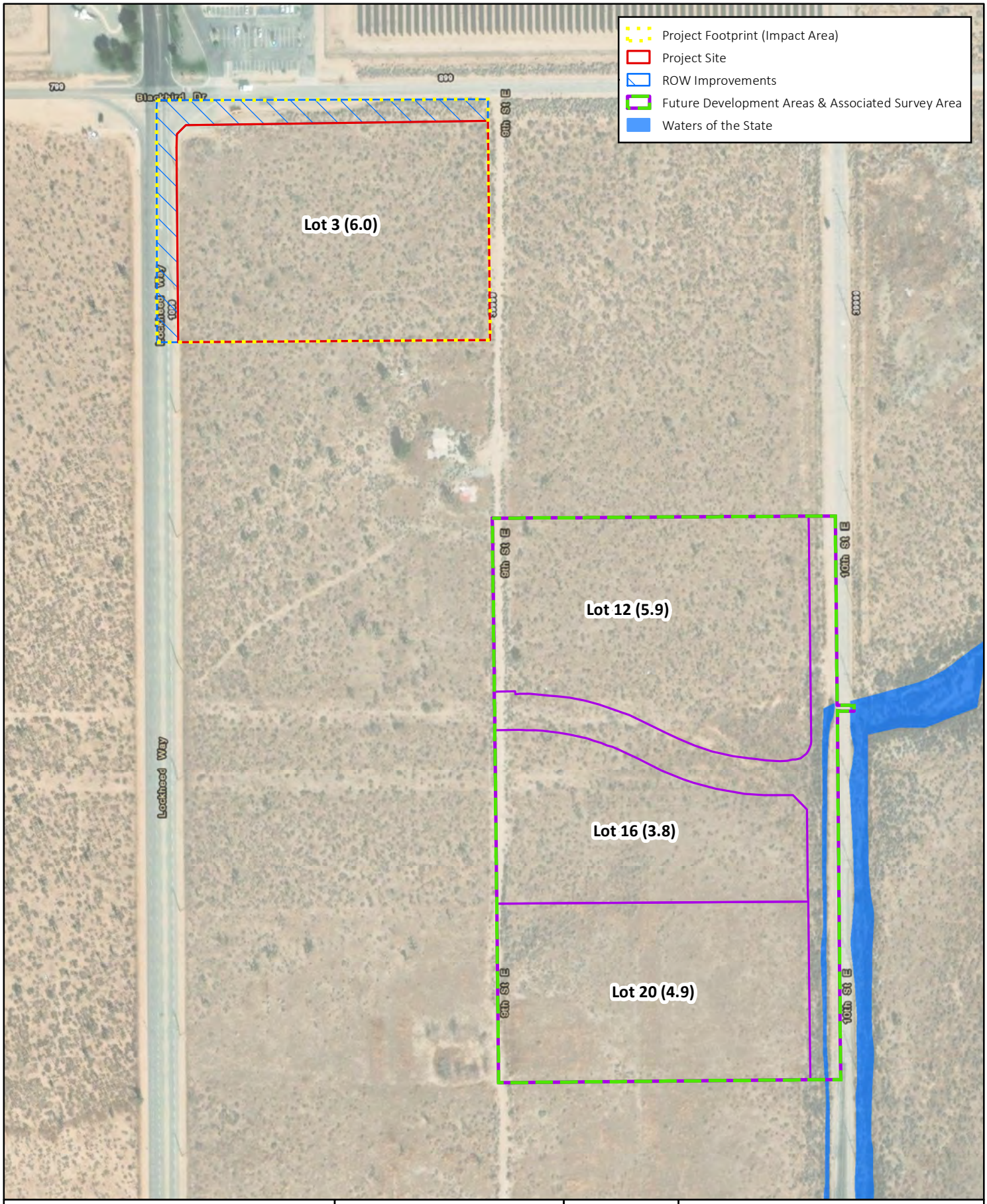
PBP Industrial Project

Figure 8

Soils Map




Prepared By:
VCS Environmental

Map Created: August 2023
Data Sources: ESRI, Red Brick, County of Los Angeles

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User

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Feet
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Figure 9

PBP Industrial Project
Waters of the State (WoS) Map

# APPENDIX A

# Site Photographs

Photo 1. View of Rabbitbrush scrub community within the northern portion of Project footprint. Joshua Tree Woodland community within the northern and central portion of the Project footprint is in the background; facing South. Taken September 2022.

Photo 2. View of disturbed Mixed Desert Scrub habitat within the central southwest portion of Project footprint; facing north. In the background is Joshua Tree Woodland community within the west portion of the Project site. Taken September 2022.

Photo 3. View of drainage southeast of the Project footprint; facing south. Drainage directs flows north to the existing natural earthen channel near the intersection of Avenue O-12 and 10th Street East. Taken September 2022.

Photo 4. View of drainage pipe on the eastern portion of the Project site, which connects to the existing natural earthen channel across 10th Street East; facing east. Taken September 2022.

Photo 5. View of natural earthen channel located across 10th Street East; facing east. Taken September 2022.

Photo 6. View of Big Sagebrush Scrub commuity on the eastern edge of the Project footprint. In the background, the Big Sagebrush Scrub community within eastern portion of Project footprint; facing north. Taken September 2022.

Photo 7. View of dirt road running south within the middle of the Project footprint; facing south. Taken September 2022.

Photo 8. View of disturbed Mixed Desert Scrub habitat within the eastern portion of Project footprint; facing north. In the background and to the east is Big Sagebrush Scrub community. Taken September 2022.

Photo 9. View of Creosote scrub community on the eastern portion of the Project footprint; facing northeast. In the background to the west is the Joshua Tree Woodland communtiy. Taken September 2022.

Photo 10. View of Joshua Tree Woodland community in the northeast portion of the Project footprint. Facing east. Taken September 2022.

# APPENDIX B

# Envira Habitat Assessments Report

ENVIRA
Aquaculture Fisheries Environmental
P.O. Box 2612, Ramona, California, USA 92065
Phone 619-885-0236 E-mail PHVERGNE@AOL.COM

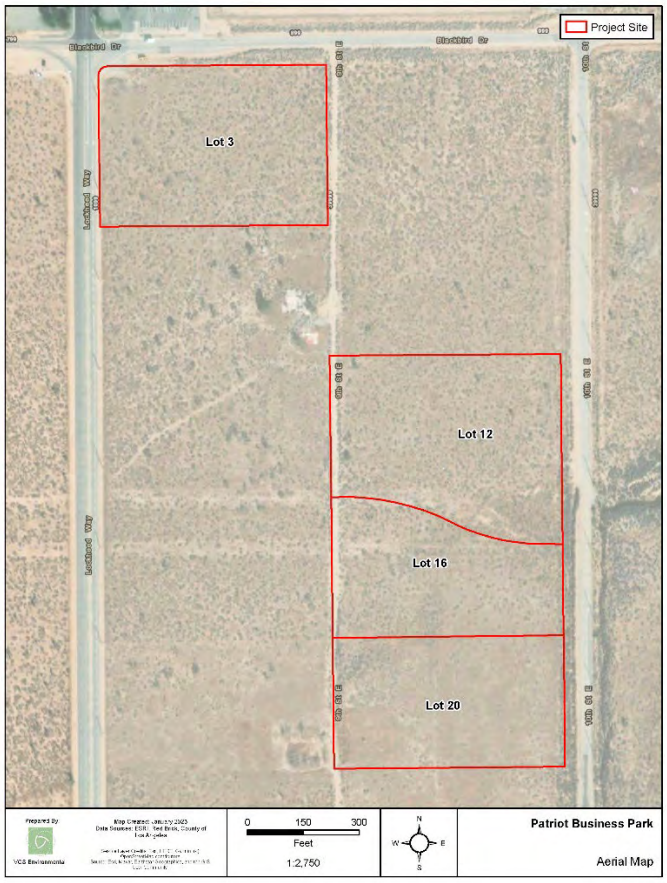
January 22, 2023

**Background**

Philippe Vergne of ENVIRA conducted surveys for the Mohave Ground Squirrel -MGS (*Xerospermophilus mohavensis;* Desert tortoise-DT (*Gopherus agassizii*); Burrowing Owl (Athene culuaris); Sharp-shinned hawk ( *Accipiter striatus*); Loggerhead Shrike (*Lanius ludovicianus*); Le Contre's trasher (*Toxostoma lecontei* ); Joshua Tree ( *Yucca brevifolia*); and Vegetation and Rare plant survey Patriot Site, consisting of three separate plots along 9th Street and to the south of Lockheed Way in Palmdale, Los Angeles County Ca.

The current report documents findings for Patriot Proposed Project on the following lots:
Lot 3 – 3022026003, Lot 12 – 3022026012, Lot 16 – 3022025004, Lot 20 – 3022025008.

**Figure 1 Patriot Project Site**



Survey Dates: October 20, 2022 and January 3, 2023

Acreage 4 parcels less than 60 acres total acres
Survey Times 10:30 AM to 17:30 PM and 7:30 to 14:00 PM

Temperature: 59-73 F, partly cloudy, winds 05-10 MPH; 48 to 67, partly cloudy, winds 5-12 MPH

## SPECIES BACKGROUND AND FOCUSED SURVEYS

Prior to beginning field surveys, resource specialists were consulted and available information from resource management plans and relevant documents were reviewed to determine the locations and types of biological resources1 that have the potential to exist within and adjacent to the study area; resources within several miles of the Project Site were evaluated.

The materials reviewed included, but were not limited to, the following:

1. U.S. Fish and Wildlife Service (USFWS) Critical Habitat Mapper and File Data (USFWS 2013a);
2. USFWS Ventura Field Office Species List for San Bernardino County (2013b);
3. California Natural Diversity Database maintained by the California Department of Fish and Wildlife (CDFW 2013);
4. California Native Plant Society (CNPS) Electronic Inventory (CNPS 2013);
5. Aerial Photographs (Microsoft Corporation 2013); and
6. Previous biological reports prepared for immediately adjacent sites( Altec Land Planning)
7. Leitner Current Status of MGS (Figure 3).

### Applicable Regulatory Framework

#### *Federal Endangered Species Act*

The USFWS administers the federal Endangered Species Act (FESA) that provides a process for listing species as either threatened or endangered, and methods of protecting listed species. The FESA defines as "endangered" any plant or animal species that is in danger of extinction throughout all or a significant portion of its range. A "threatened" species is a species that is likely to become endangered in the foreseeable future. A "proposed" species is one that has been officially proposed by USFWS for addition to the federal threatened and endangered species list.

Section 9 of the FESA prohibits "take" of threatened or endangered species. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. The presence of any federally threatened or endangered species that are in a project area generally imposes severe constraints on development, particularly if development would result in "take"

1 For the purposes of this analysis, "biological resources" refers to the plants, wildlife, and habitats that occur, or have the potential to occur, within the study area.

of the species or its habitat. Under the regulations of the FESA, the USFWS may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

### *California Endangered Species Act*

The CDFG administers the California Endangered Species Act (CESA). The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

### *Sections 3503 and 3511 of California Fish and Game Code*

The CDFG administers the California Fish and Game Code. There are particular sections of the Code that are applicable to natural resource management. For example, Section 3503 of the Code states it is unlawful to take, possesses, or needlessly destroy the nest or eggs of any bird. Section 3511 of the Code lists fully-protected bird species, where the CDFG is unable to authorize the issuance of permits or licenses to take these species.

### *Migratory Bird Treaty Act*

The Migratory Bird Treaty Act (MBTA) makes it unlawful to pursue, capture, kill, or possess or attempt to do the same to any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union.

### *Section 404 of the Federal Clean Water Act*

Section 404 of the federal Clean Water Act, which is administered by the Corps regulates the discharge of dredge and fill material into waters of the United States. The Corps has established a series of nationwide permits that authorize certain activities in waters of the United States, provided that a proposed activity can demonstrate compliance with standard conditions. Normally, the Corps requires an individual permit for an activity that will affect an area equal to or in excess of 0.3 acre of waters of the United States. Projects that result in impacts to less than 0.3 acre of waters of the United States can normally be conducted pursuant to one of the nationwide permits, if consistent with the standard permit conditions. The Corps also has discretionary authority to require an Environmental Impact Statement for projects that result in impacts to an area between 0.1 and 0.3 acre. Use of any nationwide permit is contingent on the activities having no impacts to endangered species.

### *Section 1600 of the California Fish and Game Code*

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California are subject to the regulatory authority of the CDFG pursuant to Sections 1600 through 1603 of the Code, requiring preparation of a Streambed Alteration Agreement. Under the Code, a stream is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Included are watercourses with surface or subsurface flows that support or have supported riparian vegetation. CDFG also has jurisdiction within altered or artificial waterways based on the value of those waterways to fish and wildlife, and also has jurisdiction over dry washes that carry water ephemerally during storm events.

### *Section 401 of the Clean Water Act*

Section 401 of the Clean Water Act requires that "any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal Clean Water Act." Therefore, before the Corps will issue a Section 404 permit, applicants must apply for and receive a Section 401 water quality certification from the Regional Water Quality Control Board (RWQCB).

### *Porter Cologne Act*

The RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, with any region that could affect the water of the state" (water code 13260(a)), pursuant to provisions of the State Porter-Cologne Water Quality Act. "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code 13050 (e)).

## Species of Concern

### **Mohave Ground Squirrel**

The MGS was listed as a rare species in 1971 under the authority of the California State Endangered Species Act of 1970 (CESA) and was re-designated as a state threatened species in 1985 (Gustafson 1993). The MGS is small, grayish, diurnal squirrel. The California Department of Fish and Wildlife (CDFW) is the responsible agency that provides for its protection and management.

MGS are dormant in the fall and winter months, but emerge from hibernation in February and begin pair bonding and mating during March (Gustafson 1993). If rainfall is adequate, MGS will reproduce. If rainfall levels are not sufficient to support substantial annual plant growth, then MGS will merely forage on herbaceous perennials and shrubs until they gain ample body mass for another prolonged period of dormancy (Gustafson 1993). The adult males can enter dormancy as early as late May. Juveniles will remain above-ground until August in order to acquire generous fat reserves prior to entering dormancy.

The site is within the historic range of the Mohave ground squirrel. MGS occur in the western half of the Mojave Desert. Its historical range encompasses an area between Antelope Valley and Lucerne Valley, in the south (Gustafson 1993). However, MGS occurrences in the southern portion of its range are very unusual. The northern limits of the range are near Owens Dry Lake bed, in the north, and through China Lake Naval Weapons Station and Fort Irwin Military Base in the east (Gustafson 1993). The eastern limit of the species range extends to Barstow and south along the Mojave River. The western limits loosely follow State Highway 14 and the foothills of the southern Sierra Nevada escarpment (Gustafson 1993). Several other common squirrels occur within their range; antelope ground squirrel (AGS; *Ammospermophilus leucurus*), round-tailed ground squirrel (RTGS; *Xerospermophilus tereticaudus*) and the California ground squirrel (CGS; *Spermophilus beecheyi*).

The Mohave ground squirrel (MGS) is a state listed threatened species under the California Endangered Species Act.

The proposed project site is located at the southern edge of the historic geographic range of the MGS. The closest recent capture of MGS to the site based on Leitner is some 20 miles to the northeast (Figure

One) to the south of Edwards Air Force Base. MGS have not been documented within or near the study site (California Natural Diversity Database, 2017) in many years.

**Figure Two MGS Distribution by Lightner**

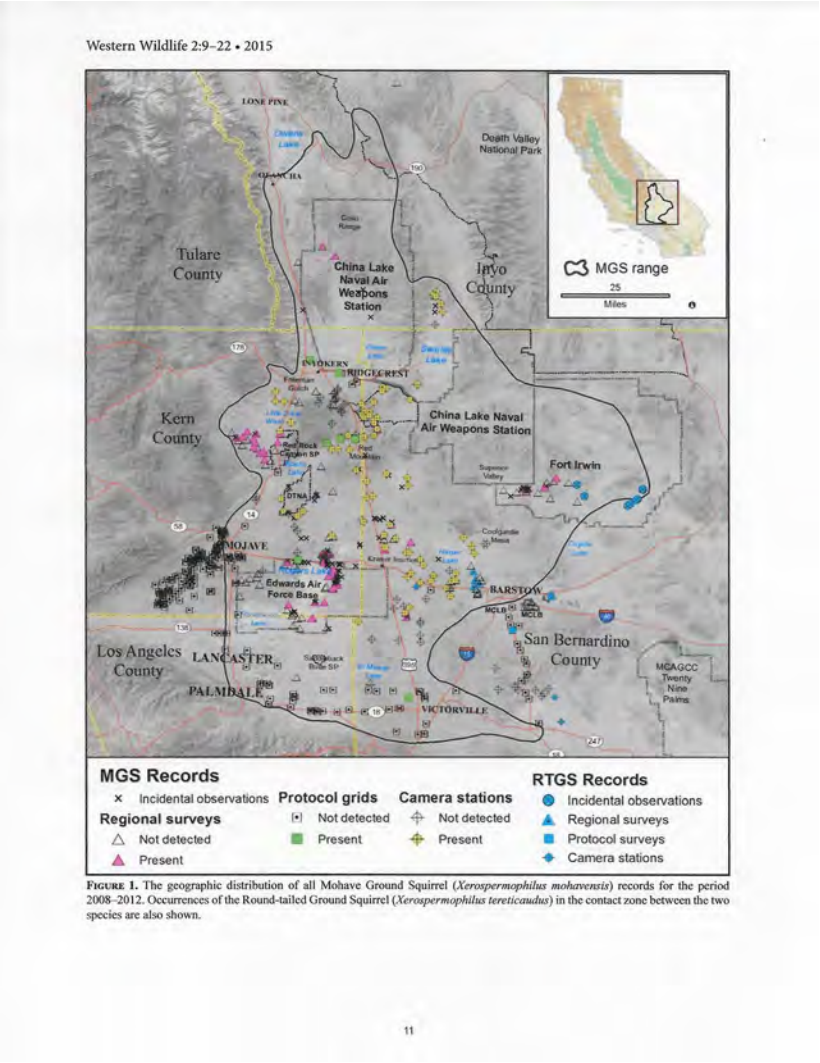


FIGURE 1. The geographic distribution of all Mohave Ground Squirrel (*Xerospermophilus mohavensis*) records for the period 2008–2012. Occurrences of the Round-tailed Ground Squirrel (*Xerospermophilus tereticaudus*) in the contact zone between the two species are also shown.

11

### Desert Tortoise

The desert tortoise (*Gopherus agassizii*) is a desert dwelling reptile that occurs throughout the Mojave and Sonoran deserts. It is found in California, Nevada and Utah, occurring in almost every type of habitat except dry lakes or playas, sand dunes and sand sheets and rocky slopes.

Tortoises construct underground burrows as living quarters, and spend most of the year down in the burrows. They come out for forage in the early spring (February and March) and remain active above ground until early June, when they retreat to their burrows for most of the summer, fall and winter months. They will emerge and be active during the fall months of September and October, depending upon late summer weather conditions. Although they stay underground for most of the year, tortoises can be found active above ground at all times of the year.

Tortoises forage on spring annual wildflowers and grasses. During the foraging season, they also breed and

lay eggs in preparation for the next spring.

The desert tortoise hibernates or estivates underground for much of the year as an adaptation to the extreme temperature changes characteristic of desert winters and summers. As a result, determining whether desert tortoise are present in a particular area is generally restricted to locating sign, or evidence, of recent activity.

The tortoise has been undergoing a decline in population due to a number of factors. These include loss or destruction of habitat, killing or harming of animals in the wild, collection of individual animals, raven predation and disease.

The CDFW listed the tortoise as threatened on June 22, 1989. The tortoise was emergency listed as endangered by the USFWS on August 4, 1989. The USFWS listing was later changed to threatened. Both listings were made based on populations declining due to the factors listed above. The discovery that the tortoise was rapidly disappearing throughout its range as a result of a disease known as Upper Respiratory Disease

Syndrome (URDS) was a critical part of the listing decisions.

**Figure 3. Desert Tortoise Distribution for Mohave Desert**

**Burrowing Owl**

The burrowing owl (*Athena cunicularia*) is a small owl, which occurs throughout the U.S. and parts of Canada. It typically resides in old rodent, tortoise or mammal burrows in open desert, grasslands and agricultural areas. The owl is most active at dawn and dusk however it can be observed foraging any time of the day or night particularly when young are present. They prey primarily on invertebrates and small reptiles and mammals; however they have been observed taking birds, amphibians, and bats. Breeding season typically begins in late March but it may begin earlier in milder years. Typically, 6-12 eggs are laid in underground nests.

Typical habitats suitable for the burrowing owl consist of two parts. First, the overall habitat type can vary significantly but would fall under some of these major habitat types: annual and perennial grasslands, deserts, scrublands and agricultural or range lands with low growing, sparse vegetation. Second, and most importantly, the site would support burrows which are the most essential component of burrowing owl habitat. Since the burrowing owl does not typically create its own burrows, it relies on the burrows made by fossorial mammals and reptiles such as ground squirrels, badgers, foxes, coyotes and the desert tortoise. Artificial burrows made by humans such as pipes, rock piles, agricultural ditches and canals also provide suitable burrows.

The burrowing owl was once a very common bird throughout the U.S. and Canada, even as late as 1975. Ornithologists referred to the owls as being ubiquitous throughout most of southern California. Current research has shown that the owls have suffered ~60% decline between 1980 and 1990. The primary reason for the decline of the owl in California is the loss of habitat to development. Other factors affecting the decline of burrowing owls include the use of rodenticides and pesticides, shooting, vehicle mortalities, disking, flood control maintenance, and predation by stray dogs and cats. Currently, the burrowing owl is listed as a Species of Special Concern by the California Department of Fish and Game and is therefore afforded additional protection and mitigation measures to help reduce impacts from projects.

A compilation of burrowing owl observations in the vicinity of the Patriot Project were derived from the California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDB 2020).

This information was used to help determine if the burrowing owl was previously reported on, or adjacent to the subject property. Observations of burrowing owls in the region were also obtained from other resources such as the U.S. Fish and Wildlife Service (USFWS) and various scientific research papers. This information allows us to better predict probabilities of occupation by burrowing owls.

**Other Sensitive Species**

The other potential sensitive animals species and habitats looked for on the Patriot Site, their requirements, and findings are given in Table One.

**Findings for Patriot Sites**

**Table One. Potential Sensitive Animals and Habitat on Patriot Site**

| | | | | |
|---|---|---|---|---|
| REPTILES | | | | |
| **Desert tortoise**<br><br>*Gopherus agassizii* | Historically found throughout the Mojave and Sonoran Deserts into Arizona, Nevada, and Utah. Occurs throughout the Mojave Desert in scattered populations. Found in creosote bush scrub, saltbush scrub, thornscrub (in Mexico), and Joshua tree woodland. Found in the open desert as well as in oases, riverbanks, washes, dunes, and occasionally rocky slopes. | February - June, all deserts<br><br>Aug - Sep<br><br>primarily eastern deserts.<br><br>Can be present throughout year | FED: THR<br><br>STATE: THR | Not present. Sign not observed on the property or zone of influence. |
| **BIRDS** | | | | |
| **Northern harrier**<br><br>*Circus cyaneus* | Grassland and marshy habitats in Southern California. Uncommonly in open desert and brushlands. | Year round | FED: ND<br><br>STATE: CSC | Low. Not observed during the surveys. Forages over a wide range of open habitat and can be expected to occur throughout most of Southern California. Although no nesting habitat was found, foraging habitat exists on site. |
| **Sharp-shinned hawk**<br><br>*Accipiter striatus* | Nests in woodland, coniferous deciduous forest. Winter visitor and migrant to coastal Southern California. Forages over a variety of habitats. | Fall & winter; scarce in summers | FED: ND<br><br>STATE: CSC | Low. Not observed during the surveys, but are expected to forage infrequently over the property during migration and in winter. |

| | | | | |
|---|---|---|---|---|
| **Cooper's hawk**<br>*Accipiter cooperi* | Woodland and semi-open habitats, riparian groves and mountain canyons. Uncommon permanent resident in coastal, mountains, and deserts of Southern California. Transients fairly common on coast in fall. | Year round; predominant in summer | FED: ND<br>STATE: CSC | Low. Not observed during the surveys, but are expected to forage infrequently over the property during migration and in winter. |
| **Ferruginous hawk**<br>*Buteo regalis* | Fairly common in winter in open grassland and agricultural regions in the interior, as well as some valleys along the coast. Rare and uncommon along the coast and in the desert. | Winter | FED: C2*<br>STATE: CSC | Low. Not observed during the surveys. Poor quality foraging habitat for this species exists on site. No suitable nesting habitat occurs on site. |
| **Prairie falcon**<br>*Falco mexicanus* | Nest in cliffs or rocky outcrops; forage in open arid valleys, agricultural fields. Throughout the desert and arid interior portions of coastal counties. Uncommon resident in Southern California. | Year round<br>diurnal | FED: ND<br>STATE: CSC | Low. Not observed during the surveys. Foraging habitat exists for this species over the property, no suitable nesting habitat. |
| **Burrowing owl**<br>*Athene cunicularia hypugea* | Grasslands and rangelands, usually occupying ground squirrel burrows. Resident over most of Southern California. Found in agricultural areas. | Year round | FED: ND<br>STATE: CSC | Low. No burrows were observed on site, but this species may forage on site and nest in adjacent areas. |
| **Le Conte's thrasher**<br>*Toxostoma lecontei* | Uncommon and local resident in low desert scrub throughout most of the Mojave Desert, extending up into the southwestern corner of the San Joaquin Valley. Breeding range extends from these areas into eastern Mojave, north into the Owens Valley and | Year round | FED: ND<br>STATE: CSC | Moderate. This species may nest and forage on site. Was not observed during recent surveys. |

| | | | | |
|---|---|---|---|---|
| | south into the lower Colorado Desert, and eastern Mojave. Also recorded from southern Nevada and Utah, as well as western Arizona and New Mexico. | | | |
| **Bendire's thrasher**<br>*Toxostoma bendirei* | Breeds in thorny shrubs and cactus in Joshua tree woodland with scattered desert shrubs such as creosote bush and burrobush primarily in eastern San Bernardino County. Also occur in the eastern Mojave in areas with high numbers of *Opuntia*, or cholla, cactus. Common summer resident in Joshua Tree National Monument. | Resident<br>February - August | FED: ND<br>STATE: CSC | Moderate. Not observed during the surveys; however, suitable breeding and foraging habitat exist on the property. |
| **Loggerhead shrike**<br>*Lanius ludovicianus* | Open fields with scattered trees, open woodland, scrub. Fairly common resident throughout southern California. | Year round | FED: ND<br>STATE: CSC | Low. Not observed. This species may nest in Joshua trees, and forage on site. |
| **MAMMALS** | | | | |
| **California leaf-nosed bat**<br>*Macrotus californicus* | In California, these bats primarily occupy low-lying desert areas, where they roost in caves, mines, and old buildings. Historic records extend west to near Chatsworth, Los Angeles County, but most populations from the California coastal basins are believed to have disappeared. Occurs from northern Nevada, Southern California, and western Arizona south to southern | Year round nocturnal | FED: ND<br>STATE: CSC | Low. Because there are no suitable roost sites in the property limits this species does not roost on the property. However, it may forage over the property if there are roosting sites nearby. |

| | | | | |
|---|---|---|---|---|
| | Baja California and Sonora. | | | |
| **Spotted bat**<br>*Euderma maculatum* | Found in the western North America from southern British Columbia to the Mexican border, at a small number of widely scattered localities. Habitats range from arid deserts and grasslands through mixed conifer forest up to 10,600 foot elevation. Prefers rock crevices in cliffs, also uses caves and buildings. | Spring, Summer, Fall<br>Nocturnal<br>Hibernates in Winters | FED: ND<br>STATE: CSC | Low. Because there are no suitable roost sites in the property limits, this species does not roost on the property. However, it may forage over the property if there are roosting sites such as caves in the nearby mountains. |
| **San Diego black-tailed jackrabbit**<br>*Lepus californicus bennettii* | Variety of habitats including herbaceous and desert scrub areas, early stages of open forest and chaparral. Most common in relatively open habitats. Restricted to the cismontane areas of Southern California, extending from the coast to the Santa Monica, San Gabriel, San Bernardino and Santa Rosa mountain ranges. | Year round, diurnal and Crepuscular activity | FED: ND<br>STATE: CSC | Present. Jackrabbits were observed during the field surveys, but the geographic location of the property indicates that the individuals observed belonged to the desert race, and not the coastal race. |
| **Mohave ground squirrel**<br>*Spermophilus mohavensis* | Creosote bush scrub, saltbush scrub and Joshua tree woodland. This species is found in the open desert, at oases, along riverbanks, and washes, in dunes and on rocky slopes. Its known habitat extends from San Bernardino north to Kern and Inyo counties. | Active in spring | FED: ND<br>STATE: THR | Not present. Very Low quality habitat occurs on site. Key food species not present. |
| **Grasshopper mouse** | In the more arid regions of southern California. Especially prefers sandy | Year round | FED: ND<br>STATE: CSC | Moderate probability. |

| | | | | |
|---|---|---|---|---|
| *Onychomys torridus ramona* | areas of the Mojave, Sonoran deserts. | | | |
| **SENSITIVE HABITATS** | | | | |
| **Joshua tree woodland** | Most of the Mojave Desert and parts of the Colorado Desert. | Year round | Protected by local ordinance | A Joshua tree woodland does not occur on site, but individual Joshua trees are scattered and present over the site. Survey and mapping performed. |
| **Jurisdictional Drainages and Vernal Pools** | | | | |
| **Drainages** | | | Protected by Federal, State, and local ordinance | There are no jurisdictional drainages on site |
| **Vernal Pools** | | | Protected by Federal, State, and local ordinance | There are no vernal pools nor suitable soils on site for vernal pools to occur. |

## Legend

*FED:* *Federal Classifications*

| | |
|---|---|
| END | Taxa listed as endangered |
| THR | Taxa listed as threatened |
| PE | Taxa proposed to be listed as endangered |
| PT | Taxa proposed to be listed as threatened |
| C2* | The U.S. Fish and Wildlife Service (USFWS) revised its classifications of candidate taxa (species, subspecies, and other taxonomic designations). The former designation of "Category 2 Candidate for listing" has been discontinued. The USFWS will continue to assess the need for protection of these taxa and may, in the future, designate such taxa as Candidates. NRA, Inc. has noted the change in species status by marking with an asterisk (*) those C2 candidates that were removed from the list. |
| C | Candidate for listing. Refers to taxa for which the USFWS has sufficient information to support a proposal to list as Endangered or Threatened and issuance of the proposal is anticipated but precluded at this time. |
| ND | Not designated as a sensitive species |

**STATE:** **State Classifications**

| | |
|---|---|
| END | Taxa listed as endangered |
| THR | Taxa listed as threatened |
| CE | Candidate for endangered listing |
| CT | Candidate for threatened listing |
| CFP | California Fully Protected. Species legally protected under special legislation enacted prior to the California Endangered Species Act. |
| CSC | California Species of Special Concern. Taxa with populations declining seriously or that are otherwise highly vulnerable to human development. |
| SA | Special Animal. Taxa of concern to the California Natural Diversity Data Base regardless of their current legal or protected status. |
| ND | Not designated as a sensitive species |

**CNPS:** **California Native Plant Society Classifications**

| | |
|---|---|
| 1A | Plants presumed by CNPS to be extinct in California |
| 1B | Plants considered by CNPS to be rare or endangered in California and elsewhere |
| 2 | Plants considered by CNPS to be rare, threatened or endangered in California, but which are more common elsewhere |
| 3 | Review list of plants suggested by CNPS for consideration as endangered but about which more information is needed. |
| 4 | Watch list of plants of limited distribution whose status should be monitored. |

*Occurrence Probabilities*

| | |
|---|---|
| Occurs | Observed on the site during this study or recorded on site by other qualified biologists |
| Expected | Not observed or recorded on site, but likely to be present at least during a portion of the year |
| High | Known to occur in the vicinity of the project site. Suitable habitat exists on site. |
| Moderate | Known to occur in the vicinity of the project site. Small areas of or marginally suitable habitat exists on site. |
| Low | No reported sightings within the vicinity of the project. Available habitat limited and rarely used. |
| None | Focused surveys did not locate the species, or suitable habitat does not exist on site. |
| Unknown | No data is available on whether species is on or in the vicinity of the site, and information about the species is insufficient to make an accurate assessment of probability occurrence. |

**Vegetation and Joshua Trees**

The proposed Patriot Project site contains disturbed scrub, Joshua tree woodland, and annual grasslands.

Site impacts include dirt roads, fencing, remnant house foundations, abandoned water wells, illegal ORV use and trash dumping.

Lots 16 and 20 have been grubbed in the past and have emergent scrub and mostly disturbed annual grassland components.

The Site and general area contains Joshua trees (*Yucca brevifolia)* , Creosote *(Larrea tridentata)*, California buckwheat (*Eriogonum fasciculatum* var. *polifolium*), Common Sagebrush (*Artemisia tridentata*), Rabbitbrush (*Chrysothamnus nauseosus*), Mormon Tea *(Ephedra nevadensis)*, Boxthorn *(Lycium andersonii)*, and annuals Filaree *(Erodium sp.). Also present are invasive grass species such as* Schimus *(Schimus barbatus)*, Bromus *(Brome sp.)*.

Native desert plants encountered include the Joshua tree, Chollas, and small creosote rings.

Only some of the Joshua trees warrant preservation, relocation or mitigation. Figure Four gives location of Joshua trees on the parcels and surrounding area. Table Two Gives the size and Joshua tree parameters and identifies the preservation/relocation individuals. Final impacts to Joshua trees on site can only be determined once a grading and development plan has been completed.

A list of plant species prepared by is given in Table Three.

**Figure 4 Location of Joshua Trees on Patriot Development Project All Lots**

**Table Two Joshua Trees Within Lots 3,12,16 and 20**

| Lot Number | Map Reference | Heights Feet | Diameter Inches | | | | Trunk | | Health | Avoid/Relocate |
|---|---|---|---|---|---|---|---|---|---|---|
| Lot3 | | | | 32 | 3-4 | <4 | Multi clump of 3 | | H | No |
| | | | | 35 | 3-6 | 4 to 6 | Multi clump of 6 | | D | No |
| | | | | 37 | | | | | Dead on Ground | No |
| | | | | 39 | 3-10 | 4 to 7 | Multi clump of 8 | | D | No |
| | | | | 41 | 3 | <4 | Multi Clump of 4 | | D | No |
| | | | | 42 | 8 | 7 | Multi 2 | | H | Yes |
| | | | | 46 | 16 | 14 | 1 | | D | No |
| | | | | 47 | 10 | 7 | Multi 2 | | D | No |
| | | | | 49 | 8 | 5 | 1 | | H | Yes |
| Lot 12 | | | | 67 | 25 | 18 | 1 | | D | No |
| | | | | 70 | | | | | Dead on Ground | No |
| | | | | 71 | | | | | Dead on Ground | No |
| | | | | 72 | 21 | 11 | 1 | | H | |
| | | | | 73 | 23 | 13 | 1 | | H | |
| | | | | 74 | 4-11 | 2-8 | 6 | | Clones | No |
| | | | | 75 | 3-10 | 2-5 | 8 | | Clones | No |
| | | | | 76 | 15 | 6-8 | 2 | | D | No |
| | | | | 80 | 9 | 7 | 1 | | H | Yes |
| | | | | 82 | 30 | 8-16 | 2 | | Clones | No |
| Lot 16 | | | | 81 | 8-16 | 5-7 | Clump of 4 | | D | No |
| Lot 20 | | | | 0 | | | | | | |
| Total | | | | 20 | | | | | | 3 for Avoidance or Relocation |

Based on the Joshua Tree related findings it is recommended that, post design and prior to ground disturbance, the following measures be implemented as part of the project to avoid, minimize, or compensate for potential impacts:

Prior to initiation of Joshua Tree impacts obtain CESA permit 2081.

Obtain mitigation land within Joshua Tree Conservation Bank at a minimum ration of 2:1 with final ratio determined by California Department of Fish and Wildlife.

**Mohave Ground Squirrel**

MGS reproduction is tied to adequate rainfall and forage. In low rainfall years (e.g., less than 6.5 cm [2.6 in.]), they may forego breeding (MGSWG 2011), and breeding may not occur for several years during prolonged drought (Best 1995). Because of the small geographic range of the species, low rainfall can lead to reproductive failure throughout the range (MGSWG 2011, Dudek, 2012). Given the short life span of MGS, approximately 5 to 7 years, if too many years pass with less than 2.6 inches of rainfall this reproductive strategy may cause the extirpation of local populations.

The lack of rainfall in the past six years, would be expected to inhibit reproduction and immigration of MGS.

The surveyed area is lacking in necessary food species and quantity for MGS survival.

Adequate cover and forage for MGS appeared to be extremely limited or non existant within and around the study site. No winter-fat (*Eurotia lanata*), nor spiny hopsage (*Grayia spinosa*) were found on the study site or nearby. These two species are considered important forage for MGS. Dr. Leitner postulated based on trapping surveys in the southern portion of the MGS range that densities of < 24/ha for spiny hopsage and < 100/ha of winter-fat on a site was considered poor forage and may be related to the absence of MGS. No streams or washes were noted on the study site. Absence of this habitat feature further lessens the likelihood of MGS presence on the study site or their ability to persist during long term drought conditions (Logan 2016). No wildlife corridors are expected to exist between the closest core MGS population and the project site. The maximum documented movement of MGS is 3.9 miles (Harris and Leitner 2005). The nearest recent capture of MGS to the site is on Edwards Air Force Base.

Based on all these factors, Mohave ground squirrels are not expected to be present on site. No protection measures are recommended for Mojave ground squirrels.

No white-tailed antelope ground squirrels were observed on site although several animals were detected to the east of the site on the other side of 10$^{th}$ street.

**Desert Tortoise**

Desert tortoise surveys were conducted on October 20, 2022 according to protocol by covering the entire project site by walking east to west transects ten meters apart; and linear transects at 200, 400, and 600 meters (were possible) in the potential zone of influence.

No sign of DT (burrows, animals, scat, drinking bowls) was observed. The desert tortoise is not present within the proposed project footprint nor the zone of influence.

Due to surrounding roads and activity, it is unlikely that DT would move onto the site. Nevertheless if grading does not occur within six month a pre-construction survey would be warranted.

**Burrowing Owl**

No burrowing owls or their sign (pellets, feathers, tracks, scat, excrement, prey remains, or nest materials) were found on-site or within the 500 foot off-site buffer.

The quality of habitat on-site for the burrowing owl is considered moderate for nesting and foraging despite the owl being absent. Reasons for the site not supporting extant owl pairs could include lack of prey, distance to nearest known populations, natal dispersal tendencies, past disturbances and abundance of both mammalian and avian predators.

If grading is not expected to occur before May of 2023, a standard pre-construction burrowing owl survey should be conducted within 30 days prior to clearing/grubbing to ensure owls have not dispersed or migrated on-site since the time of this report's initial focused surveys.

Great Horned Owl Just West of Boundary of Lot 12

**General Recommendations**

Before starting project activities, the Permittee shall designate a representative responsible for communicating with CDFW and overseeing compliance.

A Worker Environmental Awareness Program shall be conducted for all persons working on project or entering the site.

A designated Botanist shall be responsible for monitoring project activities to minimize impacts to Joshua trees within and adjacent to construction area. Said botanist shall have authority to stop project to avoid any activity that does not comply with ITP to avoid unauthorized take until such issues are appropriately resolved.

Only designated and approved access roads and laydown areas shall be used

**Table Three – Vegetation Observed On Sites**

| **Common Name** | **Scientific Name** |
|---|---|
| Joshua tree | *Yucca brevifolia* |
| Burro bush or white bur sage | *Ambrosia dumosa* |
| Desert sunflower | *Geraea canescens* |
| Bristly fiddleneck | *Amsikia tessellatas* |
| Heron's bill | *Erodium cicutarium* |
| Rubber rabbitbrush | *Ericameria nauseosa* |
| Baker's goldfield | *Lasthenia californic* |
| Fremont pincushion | *Chaenactis fremontii* |
| Cheese bush | *Hymenoclea salsola* |
| Antelope bush | *Purshia tritendata* |
| Flat-topped buckwheat | *Eriogonum plumatella* |
| California buckwheat | *Eriogonum fasciculatum* |
| Great basin sagebrush | *Artemisia tritendata* |
| Coopers box-thorn | *Lycium cooperi* |
| Desert sage | *Salvia dorii* |
| Woody bottle washer | *Camissonia boothii* |
| Plantain | *Plantago insularis* |
| Cotton thorn | *Tetradymia axillaris* |
| Creosote bush | *Larrea tridentata* |
| Snakeweed | *Gutierrezia microcephala* |
| Rabbit brush | *Chrysothamnus nauseosus* |
| Nevada ephedra | *Ephreda nevadensis* |

Picture One South Central Portion of Sites Lots 16 and 12

Picture Two Northern Portion of Site Lot 12 Looking Towards Lockheed Martin

Picture Three Dead Joshua Tree Lot 12

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Vergne P. Focused Survey for Mohave Ground Squirrel Amethyst Basin 2017 for Kidd Biological Consulting

Vergne P. Trapping Survey for Mohave Ground Squirrel US Cold Storage 2022

# APPENDIX C

# Plant and Wildlife Species Observed

## Plant Species Observed

| Scientific Name | Common Name |
|---|---|
| **Agavaceae** | **Century Plant Family** |
| *Yucca brevifolia*** | Joshua Tree |
| | |
| **Amaranthaceae** | **Amaranth Family** |
| *Atriplex sp.* | Saltbush |
| | |
| **Asteraceae** | **Sunflower Family** |
| *Ambrosia dumosa* | White Bursage |
| *Artemesia tridentata* | Big Sagebrush |
| *Chaenactis fremontii* | Fremont Pincushion |
| *Chrysothamnus nauseosus* | Rabbit Brush |
| *Ericameria nauseosa* | Rubber Rabbitbrush |
| *Franseria dumosa* | Burrobush |
| *Geraea canescens* | Desert Sunflower |
| *Gutierrezia microcephala* | Snakeweed |
| *Hymenoclea salsola* | Cheese Bush |
| *Lasthenia californica* | Baker's Goldfield |
| *Tetradymia axillaris* | Cotton Thorn |
| | |
| **Boraginaceae** | **Forget-Me-Not Family** |
| *Amsikia tessellatas* | Bristly Fiddleneck |
| *Heliotropium curassavicum* | Salt heliotrope |
| | |
| **Brassicaceae** | **Mustard Family** |
| *Brassica nigra** | Black mustard |
| *Brassica geniculata** | Short-pod mustard |
| | |
| **Cactaceae** | **Cactus Family** |
| *Cylindropuntia echinocarpa* | Silver cholla |
| *Opuntia basilaris* | Common Beavertail Cactus |
| | |
| **Chenopodiaceae** | **Goosefoot Family** |
| *Salsola australis** | Russian thistle |
| | |
| **Ephedraceae** | **Ephedra Family** |
| *Ephedra nevadensis* | Mormon tea |
| | |
| **Geraniaceae** | **Cranesbill Family** |

| Scientific Name | Common Name |
|---|---|
| *Erodium cicutarium** | Heron's Bill |
| | |
| **Lamiaceae** | **Mint Family** |
| *Salvia dorii* | Desert Sage |
| | |
| **Onagraceae** | **Evening Primrose Family** |
| *Camissonia boothii* | Woody Bottle Washer |
| | |
| **Plantaginaceae** | **Plantain Family** |
| *Plantago insularis* | Desert Plantain |
| | |
| **Poaceae** | **Grasses** |
| *Oryzopsis hymenoides* | Indian Rice grass |
| *Bromus sp.* | Brome sp |
| Schismus barbatus* | Schismus |
| | |
| **Polygonaceae** | **Buckwheat Family** |
| *Eriogonum fasciculatum* | California Buckwheat |
| *Eriogonum plumatella* | Flat-topped Buckwheat |
| | |
| **Rhamnaceae** | **Buckthorn Family** |
| *Ziziphus obtusifolia* | White Lotebush |
| | |
| **Rosaceae** | **Rose Family** |
| *Purshia tridentata* | Antelope Bush |
| | |
| **Solanaceae** | Nightshade Family |
| *Lycium andersonii* | Anderson Boxthorn |
| *Lycium cooperi* | Coopers Box-thorn |
| | |
| **Zygophyllaceae** | **Caltrop Family** |
| *Larrea tridentata* | Creosote Bush |

* non-native and/or invasive species.
** Special Status Species

**Wildlife Species Observed/Detected within the Project Footprint**

| *Scientific Name* | Common Name |
|---|---|
| **Aves - Birds** | |
| **Alaudidae** | **Larks** |
| *Eremophila alpestris* | Horned Lark |
| | |
| **Columbidae** | **Pigeons and Doves** |
| *Zenaida macroura* | Mourning Dove |
| | |
| **Corvidae** | **Crows** |
| *Corvus corax* | Common Raven |
| | |
| **Emberizidae** | **Buntings, American sparrows, and relatives** |
| *Amphispiza belli* | Sage Sparrow |
| | |
| **Mimidae** | **Mockingbirds and Thrashers** |
| *Mimus polyglottos* | Northern Mockingbird |
| | |
| **Odontophoridae** | **New World Quail** |
| *Callipepla californica* | California Quail |
| | |
| **Tyrannidae** | |
| *Sayornis saya* | Say's Phoebe |
| | |
| **Mammalia - Mammals** | |
| **Canidae** | **Foxes, Wolves and Relatives** |
| *Canis latrans* | Coyote |
| | |
| **Cricetidae** | **Mice, Rats and Voles** |
| *Peromyscus maniculatus* | Deer Mouse |
| | |
| **Geomyidae** | **Gophers** |
| *Thomomys bottae* | Botta's Pocket Gopher |
| | |
| **Heteromyidae** | **Kangaroo Rats and Mice** |
| *Dipodomys sp.* | Kangaroo Rat |
| | |
| **Leporidae** | **Rabbits and Hares** |
| *Lepus californicus* | Black-tailed Jackrabbit |
| | |
| **Sciuridae** | **Squirrels, marmots, and chipmunks** |
| *Ammospermophilus leucurus* | Antelope ground squirrels |
| | |

| **Reptilia - Reptiles** | |
|---|---|
| **Phrynosomatidae** | **Spiny Lizards** |
| *Sceloporus magister* | Desert Spiny Lizard |
| *Uta stansburiana* | Side-blotched lizard |
| | |
| **Teiidae** | **Whiptails** |
| *Cnemidophorus tigris* | Western Whiptail |

* non-native species.

** Special Status Species

# Appendix D
# PBP Industrial Project
# Special Status Plant Species Potential Occurrence Determination

This table summarizes conclusions from analysis and field surveys regarding the potential occurrence of special status species within the Study Area. During the field surveys, the potential for special status species to occur within the Survey Area was assessed based on the following criteria:

- Present: observed on the site during the field surveys, or recorded on-site by other qualified biologists.
- High potential to occur: observed in similar habitat in the region by a qualified biologist, or habitat on the site is a type often utilized by the species and the site is within the known distribution and elevation range of the species.
- Moderate potential to occur: reported sightings in surrounding region, or the site is within the known distribution and elevation range of the species and habitat on the site is a type occasionally used by the species.
- Low potential to occur: the site is within the known distribution and elevation range of the species but habitat on the site is rarely used by the species, or there are no known recorded occurrences of the species within or adjacent to the site.
- Absent: a focused study failed to detect the species or no suitable habitat is present.
- Unknown: the species' distributional/elevation range and habitat are poorly known.

Even with field surveys, biologists assess the *probability* of occurrence rather than make a definitive conclusion about species' presence or absence. Failure to detect the presence of the species is not definitive, and may be due to variable effects associated with fire, rainfall patterns, and/or season.

# Special Status Plants: Potential to Occur within the Study Area

| Scientific Name | Common Name | Status | General Habitat Description<br>Blooming period: months in parenthesis are uncommon | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| *PLANTS* | | | | |
| *Astragalus hornii var. hornii* | Horn's milk-vetch | CRPR: 1B.1, BLMS | Salty flats, lake shores.<br>Elevation: 60--300 meters (Jepson); 60 - 850 meters (CNPS)<br>Blooming period: May – Sept (Jepson); May-Oct (CNPS) | Low – The Project site is outside the known elevation range of the species and suitable habitat was not observed. Not observed during any of the surveys. |
| *Canbya candida* | White pygmy poppy | CRPR: 4.2 | This species is Native to Western Mojave Desert of California. They grow in gravely and sandy locations in Joshua tree woodland, Mojavean desert scrub and pinyon and juniper woodland.<br>Elevation: 600 – 1350 meters<br>Blooming period: April – May | Low – Project site is within the known distribution and elevation range of the species and the habitat onsite contains sandy loam soils and Joshua tree woodland. Not observed during any of the surveys. |
| *Calystegia peirsonii* | Peirson's morning-glory | CRPR: 4.2 (limited distribution in CA, 0.2 fairly endangered in CA) | Endemic to Los Angeles County, California, at the junction of the San Gabriel Mountains and the Mojave Desert in the vicinity of the Antelope Valley. Grows in several habitat types, including chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland.<br>Elevation: 1000-1500 meters<br>Blooming period: May – June | Low – although the Project site is within this species known distribution, it is outside of the species elevation range. |
| *Chorizanthe spinosa* | Mojave spineflower | CRPR: 4.2 (Limited distribution in CA; 0.2 Fairly endangered in CA) | Endemic to California. This species grows in scrub habitat at the edges of the Mojave Desert where there is sand or gravel.<br>Elevation: 600 – 1300 meters<br>Blooming period: April - July | Low – Project site contains scrub habitat and is located near edge of Mojave Desert. Not observed during any of the surveys. |
| *Loeflingia squarrosa var. artemisiarum* | Sagebrush loeflingia | CRPR 2B.2 (Rare or endangered in CA, common elsewhere; 0.2 fairly endangered in CA) | This species may be found in Inyo, Kern, Lassen, Los Angeles, Plumas, and San Bernardino counties.<br>This species grows in desert dunes, mesas, great basin scrub and Sonoran Desert scrub in sandy areas and disturbed areas.<br>Elevation: < 1200 meters<br>Blooming period: Spring- Summer | Low – Project site is within known distribution and contains creosote scrub and loamy sandy soils. Not observed during any of the surveys. |

| Scientific Name | Common Name | Status | General Habitat Description<br>Blooming period: months in parenthesis are uncommon | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| *Lycium torreyi* | Torrey's Boxthorn | CRPR: 4.2 | This species is native to northern Mexico and southwestern United States. They grow in sandy, rocky, washes, streambanks, and desert valleys of Mojavean and Sonoran Desert scrub.<br>Elevation: < 700 meters<br>Blooming period: March – May | Low – although Project site is within desert valleys of Mojavean desert and contains sandy loam soils, this species is found outside the Project site's elevation range. |
| *Muilla coronata* | Crowned muilla | CRPR: 4.2 | This species is native to deserts of eastern California and southern Nevada. They are found in Joshua Tree woodland habitat and the slopes of nearby mountains.<br>Elevation: 1000 – 1600 meters<br>Blooming period: March - April | Low – Although Project site contains Joshua tree woodlands, the site is outside the species' elevation range. |
| *Opuntia basilaris var. brachyclada* | Short-joint beavertail | CRPR: 1B.2 (Plants rare, threatened, or endangered in CA and elsewhere; 0.2 fairly endangered in CA | This species is endemic to California and is found in Los Angeles and San Bernardino counties. They are found in chaparral, Joshua Tree woodland, Mojavean desert scrub, and pinyon and juniper woodlands.<br>Elevation: 1200 – 1800 meters<br>Blooming period: April – June | Low – Although Project site contains Joshua tree woodlands, the site is outside the species' elevation range. |
| *Yucca brevifolia* | Joshua Tree | CRPR: CBR,<br>GNR, SNR | A tree found in California and elsewhere within Joshua tree woodlands of both desert flats and slopes. Prefers coarse, dry, and well-drained soils.<br>Elevation: 400 – 2300 m<br>Blooming period: March - May | Present – 9 western Joshua trees, of which one is dead, observed within the Project Footprint will be disposed of in accordance with the Western Joshua Tree Conservation Act 1927.2-1927.10 of FGC and California Endangered Species Act 2050-2115.5 of FGC. Additionally, 11 western Joshua trees, of which two are dead, were observed in the Future Development Area and Associated Survey area and are not proposed for impacts. |

| Scientific Name | Common Name | Status | General Habitat Description<br>Blooming period: months in parenthesis are uncommon | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| *ANIMALS* | | | | |
| Invertebrates / Crustaceans | | | | |
| *Helminthoglypta fontiphila* | Soledad shoulderband, snail | Rank: G1, S1<br>On the California Department of Fish and Game's special animals list, also referred to as the list of "species at risk" or "special status species." | The Mohave shoulderband is an approximately half-inch-tall, terrestrial snail with a light brown, spiraling shell that's pale pink underneath. The snail's entire global range is less than eight square miles on Soledad Mountain and two nearby peaks, Middle Butte and Standard Hill. | Low – Project site is outside species known distribution |
| Invertebrates / Insects | | | | |
| *Bombus crotchii* | Crotch bumble bee | SCE<br>Rank: G2, S1S2 | Uncommon species of coastal California east towards the Sierras; select food plan genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, Eriogonum.* Also like lotus, *Encelia* sp., milk weed, and non-native grassland. Don't prefer dense non-native vegetation. Nest in the ground but are not limited by compact soils unless no rodent burrows or crevices are present. Highly impacted by urbanization; unlikely to be found in fragmented habitats and more likely to be found in large undisturbed areas or sites with direct connections to large undisturbed areas. | Low – Project site is substantially disturbed and is not heavily vegetated with floral resources. |
| *Danaus plexippus* | Monarch butterfly – CA overwintering population | IUCN: EN, FCE, FSS | Winter migrant along CA coast. Known to roost in eucalyptus trees. Usually encountered in lowland areas. Obligate milkweed host plant (primarily *Asclepias* spp.) during larval stage. Nectar and milkweed resources are often associated with riparian corridors. Overwinter in groves along the coast of California and Baja California, typically close to the coast, populated by a variety of tree species, including blue gum eucalyptus (*Eucalyptus globulus*), Monterey pine (*Pinus radiata*), and Monterey cypress (*Hesperocyparis macrocarpa*). | Low – Project site lacks associated vegetation and is not heavily vegetated with floral resources like milkweed. |

| Scientific Name | Common Name | Status | General Habitat Description<br>Blooming period: months in parenthesis are uncommon | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| **Reptiles** | | | | |
| *Anniella pulchra* | Northern California legless Lizard | SSC, USFS: S | This species requires loose sand for burrowing (sand, loam, or humus), moisture, warmth, and plant cover. As a result, they are most commonly found within 100 km of the coast in dunes which harbor bush lupine (*Lupinus arboreus*), mock heather (*Eriogonum parvilfolium*), mock aster (*Ericameria ericoides*), and other native coastal shrubs. Prefer moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. | Low – Project site located on the desert of the Tehachapi Mountains and contains desert scrub, lacking the essential moisture required for this species. Project site is not located in beach dunes, chaparral, pine oak woodlands, and does not contain sandy washes or stream terraces with sycamores, cottonwoods, or oaks. |
| *Gopherus agassizii* | Desert tortoise | FT, ST, IUCN:VU | Lives in a variety of habitats from sandy flats to rocky foothills, including alluvial fans, washes and canyons where suitable soils for den construction might be found. Food sources are primarily herbaceous annual forbs and grasses. It is found from near sea level to around 3,500 feet in elevation | Low – No signs of or zone of influence observed on site during the Desert Tortoise survey. |
| *Phrynosoma blainvillii* | coast horned lizard | SSC, BLMS, IUCN:LC | Inhabits open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads. Often found near ant hills feeding on ants. The species is common in most areas of the Western Riverside County MSHCP Plan Area except where adjacent to urban situations. | Low – Project site is not within the preferred habitat of the species. |
| **Birds** | | | | |
| *Accipiter cooperii* | Cooper's hawk | WL, IUCN:LC<br>MSHCP: Group 2 | Forest and woodland birds. These lanky hawks are a regular sight in parks, quiet neighborhoods, over fields, at backyard feeders, and even along busy streets if there are trees around. | Low – Project site does not contain nor is it located near old-growth trees or snags in remote mixed stands near water. |

| Scientific Name | Common Name | Status | General Habitat Description<br>Blooming period: months in parenthesis are uncommon | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| *Accipiter striatus* | Sharp-shinned hawk | WL, IUCN:LC<br>MSHCP: Group 1 | Mixed or coniferous forests, open deciduous woodlands, thickets, edges. Usually nests in groves of coniferous trees in mixed woods, sometimes in dense deciduous trees or in pure coniferous forest with brush or clearings nearby. In winter found in any kind of forest or brushy area, but tends to avoid open country. Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers, but not restricted to, riparian habitats. North facing slopes, with plucking perches are critical requirements. All habitats except alpine, open prairie, and bare desert used in winter. | Low - Suitable habitat was not found to be present on or in the vicinity of the site. |
| *Athene cunicularia* | burrowing owl | SSC, BCC, BLMS, IUCN:LC<br>MSHCP: Group 3 | Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. | Low – Project site and vicinity contain potentially suitable habitat, but no active/potentially active burrows or nests were encountered on the Project site and 500-foot buffer during the field survey. This species may forage on site and nest in adjacent areas. |
| *Buteo regalis* | ferruginous hawk | WL, BCC, IUCN: LC<br>MSHCP: Group 1 | Live in the open spaces of the West, in grasslands, prairie, sagebrush steppe, scrubland, and pinyon-juniper woodland edges. Present in southern California in the winter. | Low – site contains poor quality foraging habitat for the species and no suitable habitat occurs on site. |
| *Buteo swainsoni* | Swainson's hawk | ST, BLMS, BCC, IUCN: LC<br>MSHCP: Group 1 | Typical habitat includes open desert, grassland, or cropland containing large trees or small groves. Roosts on large trees or ground if none available. Usually found near water but also nest in arid regions. Large open areas of suitable foraging habitat with abundant and available prey base in association with suitable nesting habitat are basic requirements for successful reproduction. Due to habitat conversion, the species has shifted its foraging strategy to rely more heavily on agricultural crops. Extirpated from much of California. | Low – The site contains open desert; however, this species is uncommon in the Antelope Valley and Mojave Desert. |

| Scientific Name | Common Name | Status | General Habitat Description<br>Blooming period: months in parenthesis are uncommon | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| *Falco mexicanus* | prairie falcon | WL, BCC, IUCN:LC<br>MSHCP: Group 1 | Open hills, plains, prairies, deserts. Typically found in fairly dry open country, including grassland and desert. Also in open country above treeline in high mountains. In winter, often found in farmland and around lakes and reservoirs, and may regularly winter in some western cities. Avoids forested country, and usually scarce on the immediate coast.<br>- Distribution – Uncommon permanent resident that ranges from southeastern deserts northwest throughout the Central Valley and along the inner Coast Ranges and Sierra Nevada.<br>Habitat – Uses open annual grasslands to alpine meadows, but associated primarily with perennial grasslands, savannahs, rangeland, some agricultural fields, and desert scrub. Requires sheltered canyons, cliff ledges, escarpments, and rock outcrops for cover. | Low – Foraging habitat exists for this species onsite, however, there is no suitable nesting habitat. |
| *Gymnogyps californianus* | California condor | FE, CDFW: FP, IUCN: CR, NABCI: RWL | Condor nest sites are in cliff caves in the mountains. Some condors have nested in large cavities in the trunks of giant sequoia redwood trees. Nesting condors raise only one chick at a time. The four-inch long egg is laid in late winter or spring, and it takes two months to hatch. It takes more than a year from the time the egg is laid until the young bird has learned to live on its own. | Low – Suitable nesting habitat is not present on site. |
| *Lanius ludovicianus* | loggerhead shrike | FSC, SSC, BCC, IUCN:LC<br>MSCHP: Group 2 | The species are known to forage over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs. Nest is placed in a dense (and often thorny) tree or shrub, usually 5-30' above the ground, occasionally higher, in a spot well hidden by foliage. | Low – This species was not observed during the field surveys; however, they may nest in Joshua tree and forage on site. |

| Scientific Name | Common Name | Status | General Habitat Description<br>Blooming period: months in parenthesis are uncommon | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| *Toxostoma bendirei* | Bendire's thrasher | SSC, BLMS, IUCN VU, NABRCI: RWL, USFWS BCC<br>Rank: G4S3 | Breeds in thorny shrubs and cactus in Joshua tree woodland with scattered desert shrubs such as creosote bush and burrobush primarily in eastern San Bernardino County. Also occur in the eastern Mojave in areas with high numbers of *Opuntia*, or cholla, cactus. Common summer resident in Joshua Tree National Monument. They are a resident from February - August | Moderate – Suitable breeding and foraging habitat exists on site, however, the species was not observed during the surveys. |
| *Toxostoma lecontei* | Le Conte's thrasher | SSC, BLMS, IUCN LC, USFWS BCC, NABRCI: RWL<br>Rank: G4SW | The Le Conte's Thrasher inhabits some of the hottest and driest habitats in the southwestern United States and northwestern Mexico. Distribution – An uncommon to rare, local resident in southern California deserts from southern Mono County south to the Mexican border, and in western and southern San Joaquin Valley.<br>Habitat – Open desert wash, desert scrub, alkali desert scrub, and desert succulent shrub habitats; also occurs in Joshua tree habitat with scattered shrubs | Moderate potential – This species may nest and forage on site, however, was not observed during field surveys. |
| *Vireo bellii pusillus* | least Bell's vireo | FE, SE, IUCN:NT<br>MSHCP: Group 2 | Summer resident of Southern California in low riparian, in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis or, mesquite. | Low – Project site lacks riparian habitat and the associated vegetation |
| **Mammals** | | | | |
| *Euderma maculatum* | spotted bat | SSC, BLMS,<br>WBWG (H) | Occurs in a range of habitat from arid desert and grasslands through higher elevation mixed conifer forests. Roosting habitat consists of rock crevices, which naturally limit distribution. In southern California, primarily occurs at a small number of localities in foothills, mountains, and desert regions. | Low – no suitable roost sites within property. However, it may forage over the property if there are roosting sites such as caves in the nearby mountains. |
| *Lepus californicus bennettii* | San Diego black-tailed jackrabbit | SSC<br>MSHCP: Group 1 | This species is found in a variety of habitats including herbaceous and desert scrub areas, early stages of open forest and chaparral, and in western Riverside County in suitable grassland, sage scrub and chaparral (openings) habitat. It is also found in substantial numbers in agricultural and rural residential settings. It is restricted to the cismontane areas of Southern California, extending from the coast to the Santa Monica, San Gabriel, San Bernardino and Santa Rosa mountain ranges. | Present – the geographic location of the site indicates that the individuals observed belonged to the desert race, and not the coastal race. |

| Scientific Name | Common Name | Status | General Habitat Description<br>Blooming period: months in parenthesis are uncommon | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| *Macrotus californicus* | California leaf-nosed bat | BLMS, CDFW SSC, IUCN LC, WBWG: H | In California, these bats primarily occupy low-lying desert areas, where they roost in caves, mines, and old buildings. Historic records extend west to near Chatsworth, Los Angeles County, but most populations from the California coastal basins are believed to have disappeared. Occurs from northern Nevada, Southern California, and western Arizona south to southern Baja California and Sonora. | Low – No suitable roost sites within property. However, it may forage over the property if there are roosting sites nearby. |
| *Onychomys torridus ramona* | southern grasshopper mouse | SSC | The species occurs in desert areas, especially in scrub habitats with friable soils for digging burrows. It is also known from coastal scrub, mixed chaparral, sagebrush, low sage, and bitterbrush habitats. Historically occurred along the coast of Southern California from Los Angeles County south through San Diego County into northwestern Baja California. There are few recent records from the Los Angeles Basin, Riverside and San Bernardino, most of Orange County, or western San Diego County. | Moderate – suitable habitat present onsite, however, not observed during field surveys. |
| *Perognathus inornatus* | San Joaquin pocket mouse | SSC, BLM: S, IUCN LC, Rank: G2G3, S2S3 | This species occurs in dry, open grasslands or scrub areas on fine-textured soils in the Central valleys. It occurs on shrubby ridge tops and hillsides, and open, sandy areas with grasses and forbs. | Low – This species is located in the Central and Salinas valleys. The Project site and the species' distribution do not overlap. |
| *Xerospermophilus mohavensis* | Mohave ground squirrel | ST, IUCN VU, BLMS, Rank: G2G3, S2S3 | The Mohave ground squirrel inhabits desert areas with deep sandy or gravelly friable soils and an abundance of annual herbaceous vegetation. This species prefers arid flat terrains with desert shrubs. Habitats include alluvial fans where desert pavement is absent. Habitats in order of decreasing favorability: (1) creosote bush association, (2) shadscale association, (3) alkali sink association, and (4) Joshua tree association. Nests are in underground burrows. Individuals may use several different burrows.<br>Mohave ground squirrels feed on green vegetation and seeds and may also eat carrion. Two important plants critical to the Mohave Ground Squirrels are winterfat and spiny hop-sage. This species remains underground August until late winter or early spring (reportedly emerges in February or March, or, according to Biosystems Analysis [1989], March in the south | Absent – Very low quality habitat occurs on site and key food species are not present. Due to the lack of significant presence of winterfat and spiny hop-sage, and the existing conditions on the site, the site does not support critical habitat for the species. No active or potentially active burrows were found on the Project site during the field survey. Additionally, the site is at the southwestern edge of the known historical "Geographical Range". |

| Scientific Name | Common Name | Status | General Habitat Description<br>Blooming period: months in parenthesis are uncommon | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| | | | and May in the north). Active during the spring and summer. Elevation limit: 2000 feet – 5900 feet ASL. | |

**Legend**

*Federal Endangered Species Act (ESA) Listing Codes:* federal listing is pursuant to the Federal Endangered Species Act of 1973, as amended (ESA).
FE = federally listed as endangered: any species, subspecies, or variety of plant or animal that is in danger of extinction throughout all or a significant portion of their range.
FT = federally listed as threatened: any species, subspecies, or variety of plant or animal that is considered likely to become endangered throughout all or a significant portion of its range within the foreseeable future.
FCE = federal candidate endangered.
FD = federally delisted species.

*California Endangered Species Act (CESA) Listing Codes:* state listing is pursuant to § 1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code, relating to listing of Endangered, Threatened and Rare species of plants and animals.
SE = state listed as endangered: any species, subspecies, or variety of plant or animal that are in serious danger of becoming extinct throughout all, or a significant portion, of their range.
ST = state listed as threatened: any species, subspecies, or variety of plant or animal that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future.
SCE = state listed as candidate endangered.
SD = state delisted species

*California Department of Fish and Wildlife (CDFW):*
SSC = species of special concern: status applies to animals which 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threats to their persistence currently exist. The CDFW has designated certain vertebrate species as "species of special concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.
FP = Fully protected: animal species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.
WL = watch list: these birds have been designated as "Taxa to Watch" in the *California Bird Species of Special Concern report* (Shuford and Gardali 2008). The report defines "Taxa to Watch" as those that are not on the current special concern list that (1) formerly were on the 1978 (Remsen 1978) or 1992 (CDFG 1992) special concern lists and are not currently listed as state threatened and endangered; (2) have been removed (delisted) from either the state or federal threatened and endangered lists (and remain on neither), or (3) are currently designated as "fully protected" in California.

*United States Fish and Wildlife Service (USFWS):*
BCC = USFWS bird of conservation concern: listed in the USFWS'S 2008 *Birds of Conservation Concern* report. The report identifies species, subspecies, and populations of all migratory non-game birds that, without additional conservation actions, are likely to become candidates for listing under the ESA. While all of the bird species included in the report are priorities for conservation action, the list makes no finding with regard to whether they warrant consideration for ESA listing.

| Scientific Name | Common Name | Status | General Habitat Description<br>Blooming period: months in parenthesis are uncommon | Potential for Occurrence within the Survey Area |
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*United States Forest Service (USFS):*
FSS = Forest Service sensitive: those plant and animal species identified by a Regional Forester that are not listed or proposed for listing under the ESA and for which population viability is a concern, as evidenced by: (a) significant current or predicted downward trends in population numbers or density or (b) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution."

*United States Bureau of Land Management (BLM):*
BLMS = BLM sensitive: those plant and animal species on BLM administered lands and that are (1) under status review by the USFWS/NMFS; or (2) whose numbers are declining so rapidly that federal listing may become necessary, or (3) with typically small and widely dispersed populations; or (4) those inhabiting ecological refugia or other specialized or unique habitats. BLM policy is to provide the same level of protection as USFWS candidate species.

*California Rare Plant Ranks (Formerly known as CNPS Lists):* the CNPS is a statewide, non-profit organization that maintains, with CDFG, an Inventory of Rare and Endangered Plants of California. In the spring of 2011, CNPS and CDFG officially changed the name "CNPS List" or "CNPS Ranks" to "California Rare Plant Rank" (or CRPR). This was done to reduce confusion over the fact that CNPS and CDFG jointly manage the Rare Plant Status Review Groups and the rank assignments are the product of a collaborative effort and not solely a CNPS assignment.

CRPR: 1A - California Rare Plant Rank of 1A: Plants presumed extirpated in California and either rare or extinct elsewhere. Plants with a California Rare Plant Rank of 1A are presumed extirpated or extinct because they have not been seen or collected in the wild in California for many years. All of the plants constituting California Rare Plant Rank 1A meet the definitions of the California Endangered Species Act of the California Fish and Game Code, and are eligible for state listing. Should these taxa be rediscovered, and impacts proposed to individuals or their habitat, they must be analyzed during preparation of environmental documents relating to CEQA, or those considered to be functionally equivalent to CEQA, as they meet the definition of Rare or Endangered under CEQA Guidelines §15125 (c) and/or §15380.

CRPR: 1B - California Rare Plant Rank 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere. All of the plants constituting California Rare Plant Rank 1B meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 2A - California Rare Plant Rank 2A: Plants presumed extirpated in California but common elsewhere. Plants with a California Rare Plant Rank of 2A are presumed extirpated because they have not been observed or documented in California for many years. This list only includes plants that are presumed extirpated in California, but more common elsewhere in their range. All of the plants constituting California Rare Plant Rank 2A meet the definitions of the California Endangered Species Act of the California Fish and Game Code, and are eligible for state listing. Should these species be rediscovered, any impacts proposed to individuals or their habitat must be analyzed during preparation of environmental documents relating to CEQA, or those considered to be functionally equivalent to CEQA, as they meet the definition of Rare or Endangered under CEQA Guidelines §15125 (c) and/or §15380.

CRPR: 2B - California Rare Plant Rank 2B: Plants rare, threatened, or endangered in California but more common elsewhere. All of the plants constituting California Rare Plant Rank 2 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

| Scientific Name | Common Name | Status | General Habitat Description<br>Blooming period: months in parenthesis are uncommon | Potential for Occurrence within the Survey Area |
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CRPR: 3 – California Rare Plant Rank 3: Review List: Plants about which more information is needed. Plants with a California Rare Plant Rank of 3 are united by one common theme – there is a lack of necessary information to assign them to one of the other ranks or to reject them. Nearly all of the plants constituting California Rare Plant Rank 3 are taxonomically problematic. Many of the plants constituting California Rare Plant Rank 3 meet the definitions of the California Endangered Species Act of the California Fish and Game Code, and are eligible for state listing. Impacts to these species or their habitat should be analyzed during preparation of environmental documents relating to CEQA, or those considered to be functionally equivalent to CEQA, as they may meet the definition of Rare or Endangered under CEQA Guidelines §15125 (c) and/or §15380.

CRPR: 4 - California Rare Plant Rank 4: Plants of Limited Distribution - A Watch List. Very few of the plants constituting California Rare Plant Rank 4 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and few, if any, are eligible for state listing. Nevertheless, many of them are significant locally, and CNPS and CDFG strongly recommend that California Rare Plant Rank 4 plants be evaluated for consideration during preparation of environmental documents relating to CEQA.

*California Native Plant Society (CNPS) Threat Ranks:* The CNPS Threat Rank is an extension added onto the California Rare Plant Rank (CRPR) and designates the level of endangerment by a 1 to 3 ranking with 1 being the most endangered and 3 being the least endangered. A Threat Rank is present for all California Rare Plant Rank 1B's, 2's, 4's, and the majority of California Rare Plant Rank 3's. California Rare Plant Rank 4 plants are seldom assigned a Threat Rank of 0.1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a California Rare Plant Rank. In addition, all California Rare Plant Rank 1A (presumed extinct in California), and some California Rare Plant Rank 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension.

0.1 = seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 = fairly endangered in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3 = not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Western Riverside Multiple Species Habitat Conservation Plan (MSHCP): Planning species covered by the MSHCP. Additional surveys for Narrow Endemic Plant Species and Criteria Area Species to determine presence/absence may be required.
PS = planning species
NEPSSA # = Narrow Endemic Plant Species Survey Area (with survey area number noted).
CASSA # = Criteria Area Species Survey Area (with survey area number noted).

Group 1 = Species that have wide distribution throughout the Plan Area within suitable habitat. Take coverage is warranted based upon regional or landscape level considerations, such as healthy population levels, widespread distribution throughout the MSHCP Plan Area, and life history characteristics that respond to habitat-scale conservation and management actions.
Group 2 = Species that are relatively well-distributed throughout the MSCHP Plan Area. Take coverage is warranted based on regional or landscape level considerations with the addition of site-specific conservation and management requirements that are clearly identified in the MSHCP for species that are generally well-distributed, but that have Core Areas that require Conservation.

| Scientific Name | Common Name | Status | General Habitat Description<br>Blooming period: months in parenthesis are uncommon | Potential for Occurrence within the Survey Area |
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Group 3 = Species that have narrow habitat requirements and limited distribution within the Plan Area. Take coverage is warranted based upon site specific considerations and the identification of specific conservation and management conditions for species within a narrowly defined Habitat or limited geographic area within the MSHCP Plan Area.

Western Bat Working Group (WBWG): The WBWG is composed of agencies, organizations, and individuals interested in bat research, management, and conservation from the 13 western states and provinces. The goals are (1) to facilitate communication among interested parties and reduce risks of species decline or extinction; (2) to provide a mechanism by which current information on bat ecology, distribution, and research techniques can be readily accessed; and (3) to develop a forum to discuss conservation strategies, provide technical assistance, and encourage education programs. Species are ranked as High, Medium, or Low Priority in each of 10 regions in western North America. Because California includes multiple regions where a species may have different WBWG Priority ranks, the CNNDB includes categories for Medium-High, and Low-Medium Priority.

WBWG-H= Hight Priority
WBWG-M= Medium Priority
WBWG-L= Low Priority

American Fisheries Society: Listing of imperiled freshwater and diadromous fishes of North America prepared by the American Fisheries Society's Endangered Species Committee.

AFS-E= Endangered
AFS-TH= Threatened
AFS-V= Vulnerable

The International Union for Conservation of Nature (IUCN): The IUCN assesses, on a global scale, the conservation status of species, subspecies, varieties and even selected subpopulations in order to highlight taxa threatened with extinction, and therefore promote their conservation. Detailed information on the IUCN and the Red List is available at: http://www.iucnredlist.org

IUCN-CR = Critically endangered
IUCN-EN = Endangered
IUCN-NT = Near threatened
IUCN-VU = Vulnerable
IUCN-LC = Least concern
IUCN-DD = Data deficient
IUCN-CD = Conservation dependent

NatureServe Element Ranking: This ranking system's units of conservation may include non-taxonomic biological entities such as populations or ecological communities, thus, NatureServe refers to the targets of biological conservation as "elements" rather than taxa. The three main categories that are taken into consideration when assigning an element rank are rarity, threats, and trends.

| Scientific Name | Common Name | Status | General Habitat Description<br>Blooming period: months in parenthesis are uncommon | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| The global rank (G-rank) is a reflection of the overall status of an element throughout its global range:<br>GX: Presumed Extinct – Not located despite intensive searches and virtually no likelihood of rediscovery.<br>GH: Possibly Extinct – Known from only historical occurrences but still some hope of rediscovery. Examples of evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching and/or some evidence of significant habitat loss or degradation; (2) that a species has been searched for unsuccessfully, but not thoroughly enough to presume that it is extinct throughout its range.<br>G1: Critically Imperiled – At very high risk of extinction due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.<br>G2: Imperiled – At high risk of extinction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.<br>G3: Vulnerable – At moderate risk of extinction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.<br>G4: Apparently Secure – At fairly low risk of extinction due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.<br>G5: Secure – At very low risk of extinction due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.<br>GNR: Unranked – Global rank not yet assessed.<br><br>The state rank (S-rank) refers to the imperilment status only within California's state boundaries:<br>SX: Presumed Extirpated – Species is believed to be extirpated from the state. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered<br>SH: Possibly Extirpated – Known from only historical records but still some hope of rediscovery. There is evidence that the species may no longer be present in the state, but not enough to state this with certainty. Examples of such evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching and/or some evidence of significant habitat loss or degradation; (2) that a species has been searched for unsuccessfully, but not thoroughly enough to presume that it is no longer present in the jurisdiction.<br>S1: Critically Imperiled – At very high risk of extirpation in the state due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.<br>S2: Imperiled – At high risk of extirpation in the state due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.<br>S3: Vulnerable – At moderate risk of extirpation in the state due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.<br>S4: Apparently Secure – At a fairly low risk of extirpation in the state due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors. | | | | |
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Sources:

- Calflora website - search for plants (Calflora 2016 - 2020).
- CNPS Inventory of Rare and Endangered Plants (CNPS 2020).
- The Jepson Manual: *Vascular Plants of California,* second edition (Baldwin *et al.* 2012).
- RareFind, CDFW, California Natural Diversity Database (CNDDB) (CDFW 2020).
- State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2020).
- State and Federally Listed Endangered and Threatened Animals of California (CDFW, August 2019).
- Special Animals List (CDFW 2019)
- Western Riverside County Multiple Species Habitat Conservation Plan (County of Riverside 2003)
- Sensitive List (BLM)
- Roberts, F.M. 2008. *The Vascular Plants of Orange County, California: An Annotated Checklist*. San Luis Rey, CA: F.M. Roberts Publications.
- Hamilton, R.A. and D.R. Willick. 1996. *The Birds of Orange County, California: Status and Distribution*. Irvine, CA: Sea and Sage Audubon Society.